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AUTHOR	Penner, Barbara C.; Voss, James F.
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ABSTRACT

To study and compare the problem-solving processes of experts and non-experts, students and faculty were asked what they would do if they were head of the Ministry of Agriculture in the U.S.S.R. to increase the poor level of crop productivity found in recent years. Individual responses and analyses of these responses make up the bulk of this report. Participants included undergraduates just beginning to study Soviet domestic policy, faculty members whose field of study is the U.S.S.R., beginning and advanced graduate students whose field of interest is the Soviet Union, faculty members whose field of study is Latin America or American domestic policy, four chemistry professors, a career foreign service officer, and an Eastern European visiting scholar. The subjects were instructed to "think out loud" while generating their solutions. A tape recorder was used to collect the protocols. Results indicated that experts did not use a one-solution process. Rather, their processes differed with respect to problem decomposition into subproblems and in the way they chose to represent the problem statement. More experts used reasoning to support solutions they proposed. (RM)

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PROBLEM SOLVING SKILLS IN THE SOCIAL SCIENCES: METHODOLOGICAL CONSIDERATIONS

Barbara C. Penner and James F. Voss

Learning Research and Development Center

University of Pittsburgh

1983

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SO 015 516

Problem Solving Skills in the Social Sciences: Methodological Considerations[1]

Barbara C. Penner and James F. Voss

University of Pittsburgh

The paper entitled "Problem Solving Skills in the Social Sciences" (Voss, Greene, Post & Penner, 1983) presented results of an experiment involving the protocol analysis of answers to a question concerning Soviet agriculture. Each subject was asked to indicate what he or she would do to increase the poor level of crop productivity found in recent years in the Soviet Union, given the solver was the Head of the Ministry of Agriculture in the USSR.

The participants had varying degrees of expertise in the field of political science. The study included six experts and fourteen novices of whom ten also served as postnovices. Novices were undergraduate students just beginning a course in Soviet Domestic Policy, while the students designated as postnovices were ten of the novice students that served again at the completion of this course. The experts were five faculty members whose field of study is the USSR at the University of Pittsburgh, and one advanced political science graduate student now on the faculty at Ohio State University. Other participants included first and second year graduate students whose field of interest is the Soviet Union, three faculty members whose field of study is Latin America or American Domestic Policy, four advanced graduate students whose field of expertise is Latin and/or South America, four members of the Chemistry Department faculty, a career foreign service officer stationed in Latin America, and a visiting scholar from an Eastern European country.

With the protocols collected, a comparison of expert-novice performance differences could be made. In addition, a comparison of the performance of Soviet experts was possible with those whose field of expertise was in the same discipline or in a different discipline (chemistry). Finally, comparison of undergraduates, graduate students, and faculty provided an opportunity to study a cross-section of expertise, and thus develop some idea of how expertise develops.

The present research was conducted within the framework of the general information processing model of problem solving (cf. Newell & Simon, 1972; Simon, 1978). An extension of this model was formulated which consists of two basic components, a problem solving Goal Structure (G) and a Reasoning Structure (R). These structures are components of the solving process and are not independent of one another.

The G Structure is viewed as the control system of the problem solving process. Its operators act on the individual's knowledge base and generate the solution. The operators used in the G Structure are listed and described briefly in Table 1.

Insert Table 1 about here

The first three operators listed, GCON, GSUB, and GSOL constitute the "hard core" operators, which in some form or another are found in most problem solving activity and are self-explanatory. The remaining operators, GIPS, GSUP, and GEVA are used in conjunction with the Reasoning Structure operators.

The operator, Interpret Problem Statement (GIPS), is applied when the solver represents the question in terms of how it is to be solved. The Provide Support (GSUP) operator is applied only when the solver is using argument to support the existence of a subproblem or constraint. The Evaluate (GEVA) operator is applied when the solver argues to either accept or reject a solution, or when the solver evaluates a solution in relation to an existing constraint. GEVA is used to describe the process solvers go through after stating a solution rather than GSUP because an evaluation does not necessarily support a solution, it may, in fact, conclude that the proposed solution will not be effective or may be impossible to implement.

Operators employed in the R Structure are explained in Table 2. The application of the R Structure begins with an argument (RARG) made by the solver. Frequently, this argument is the previously stated subproblem or proposed solution. The argument is then followed by a combination of the various reasoning operators, thus a more fully developed argument.

Insert Table 2 about here

The State Assertion operator (RSAS) is applied when the solver refers to a constraint, subproblem or solution, but the factors referred to are not in the goal structure of the solution process. The RSAS operator is also used when the solver states a premise on which later reasoning is based. These factors are used in argument development, but are not actually dealing with the factor as part of the problem statement. The State Fact (RFAC) operator is used when a factual

statement is used in support of a point being made by the solver. The Present Specific Case (RPSC) operator is used for stating a specific case or example which demonstrates the contents of a previous statement. The State Reason (RREA) operator is used when the solver states a reason for a previous statement having been made. This operator often involves the use of the word "because". The operator, State Outcome (ROUT), is applied when the solver states an outcome of an action described in a previous statement. The Compare and/or Contrast (RCOM) operator is used when the solver makes a comparison between two entities in order to provide support to a previous statement. The Elaborate and/or Clarify (RELA) operator is applied when the solver elaborates on a previously made statement, while not adding anything new to the solution. The State Conclusion (RCON) operator is typically used to terminate a line of argument. It is usually employed after a series of statements and is more specific than the GSUM operator. The State Qualification (RQUA) operator is applied when a statement is made by the solver which restricts the range of application of a previous statement.

Results indicated that experts did not use one solution process. Rather, their processes differed with respect to problem decomposition into subproblems, and in the way they chose to represent the problem statement. Experts used reasoning to support solutions they proposed more than the novice-postnovices, non-expert experts, or graduate students.

In order to provide a reasonable analysis of protocol differences, it was necessary to perform a number of detailed analyses. However, because of the length and number of protocols collected, the details of these analyses were not contained in the aforementioned paper (Voss,

Greene, Post & Penner, 1983). It is therefore the purpose of the present paper to consider the procedures used to analyze the protocols collected in detail.

Collection of Protocols

Subjects were given the previously described Soviet agricultural problem, "Suppose you were the Minister of Agriculture in the Soviet Union and assume that crop productivity has been low over the past several years. You have the responsibility to increase crop production." The subjects were instructed to "think out loud" while generating their solution. They were encouraged to "say whatever comes into their head." A tape recorder was used to collect the protocol. The subject was given a copy of the problem and a pencil and paper to use if they wished to take notes. Only one subject made significant use of this.

Protocol Analysis

Protocols were collected and analyzed in two groups. The first group of protocols collected and analyzed were those of four experts and six novice-postnovices. These protocols were initially segmented into what was termed "idea units." Idea units were mostly a sentence in length, although this was not always the case. The criterion for segmentation into idea units was that each unit provided a new piece of information, or what we termed "assertion." The inter-rater reliability for segmentation into idea units was .90. The remaining protocols, collected later, were analyzed with a more top-down approach, i.e., the protocols were segmented with respect to their G and R Structure units in mind. The first group of protocols was re-analyzed in this manner also. Idea unit size remained basically consistent across the two

methods of segmentation. A strong effort was made to stay close to the protocol contents and only information not germane to the solution process was discarded. Probes given to novices designed to allow them to elaborate or explain why they chose their solutions while not leading their answers, were omitted from the G Structure. Probes that "led" novices to answers they might not have otherwise have stated terminated analysis. Novice I has been deleted from analysis in the present paper because of too many probes needed to get the subject to respond. Table 3 presents a portion of an expert protocol divided into idea units.

Insert Table 3 about here

After the protocols were broken down into their idea units, each unit was assigned either a G or R Structure operator. An idea unit was assigned a G Structure operator if the statement moved the solver from a solution state closer to the goal. As noted in Table 1, this could be accomplished through interpreting the problem statement (GIPS), identifying subproblems (GSUB), constraints (GCON), or possible solutions (GSOL), or by evaluating these solutions (GEVA).

Information contained in the G Structures herein are synopses of the proposed subproblem, solution, etc., while protocols were paraphrased in the R Structure. Again, attempts were made to stay close to the actual protocol contents.

Presented below are the protocols, in segmented form, and the structures obtained which were the results of the analyses. The expert protocols are presented first.

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Footnotes

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Table 1

G Structure Operators

GCON	State constraint
GSUB	State subproblem
GSOL	State solution
GIPS	Interpret problem statement
GSUP	Provide support
GEVA	Evaluate
GSUM	Summarize

Table 2

R Structure Operators

RARG	State argument
RSAS	State assertion
RFAC	State fact
RPSC	Present specific case
RREA	State reason
ROUT	State outcome
RCOM	Compare and/or contrast
RZLA	Elaborate and/or clarify
RCON	State conclusion
RQUA	State qualifier

Table 3

Expert A's R Structure for Historical Analysis Segment

(RARG) Historically, agriculture has been a problem in the Soviet Union

- (RFAC) Problem has been inherited from the time the czars freed the serfs
- (RFAC) Agricultural production was low even before then
  - (RREA) Historically, the aristocracy had no need to fend for itself
  - (RCOM) Was not like English aristocracy
    - (RPSC) Never introduced modern methods of fertilization
    - (RPSC) Never went to enclosures or consolidation of land
    - (RPSC) Never experimented with crop rotation
- (RFAC) Agriculture problem was passed onto peasants so they could do what they willed with the land
  - (ROUT) They responded with old, inefficient ways
- (RFAC) USSR had three different policies to increase agricultural production
  - (RPSC) Exhortation
    - (RELA) Campaign for more effort on the part of the peasants
    - (RCON) Was waste of time and energy
      - (RREA) Only gave the party a sense of false importance
        - (RREA) It is encumbant upon the party to develop these campaigns (but they haven't paid off)
        - (RREA) Party believes that ideological policies can overcome objective limitations
      - (RCON) I would not use exhortation
  - (RPSC) Reorganization
    - (ROUT) Leads to confusion, mismanagement, makes peasants laid back
    - (RPSC) Reorganized collective state farms, machine tractor stations
    - (RPSC) Now have agroindustrial complexes, reducing number of collectives and making farmer a wage earner
    - (RQUA) Have always allowed private crop to exist
      - (RQUA) Except in astringent ideological periods
      - (RELA) Is taken to be a more primitive form of production
      - (RFAC) Private crops account for 40% of food staples
  - (RPSC) Mechanization
    - (RCON) This is where I would start my solution
    - (RELA) Have tried to mechanize agricultural production more
    - (RELA) Tried to introduce scientific advances in agricultural production

Expert A

I think that as minister of agriculture, one has to start out with the realization that there are certain kinds of special agriculture constraints within which you are going to work. The first one, the most obvious one, is that by almost every count only ten percent of the land in the Soviet Union is arable. This is normally what is called the blackland in the Ukraine and surrounding areas. And secondly, even in that arable ten percent of the total land surface, you still have climate for instance, problems over which you have no direct control. So that is sort of the overall parameter in which we are working.

Now, we have traditionally in the Soviet Union used three kinds of policies to increase agricultural production. Of course, agricultural production has been our 'Achilles heels' and something that we have inherited from the time the czars freed the serfs. Even before then, the agricultural production was low because historically the aristocracy had no need to fend for itself, as it turned to the czar for its support and hence never, like the English aristocracy for instance, introduced modern methods of fertilization, never went to enclosures or consolidations of lands, never experimented with crop rotation. That was passed on to the peasants and throughout the period when the peasants had been freed to do what they willed with the land. They are responding with the old, rather inefficient ways. At any rate, we have had three different ways by which we have tried to increase agricultural production.

The first one might be labeled "exhortation." The Soviet approach to agricultural production is to mount campaigns continually to call for more effort on the part of the peasants and agricultural workers, and to put more effort into their labor activities for agricultural production. Those things are mounted periodically. Quite frankly, I think that they are a waste of time and energy and they really, as minister of agriculture I must say, that they really do nothing more than give the party a sense of false importance because it is normally encumbant upon the party to develop these idiological indoctrination campaigns and the notion of mind over matter, in this case, has not paid off and it leaves the party with the belief that idiological, and if you will excuse the term, spiritual policies can overcome objective limitations. So, I would not emphasize very much exhortation.

It seems to me that the second way that we traditionally go about trying to increase agricultural production is through constant reorganization that leads to confusion, that leads to mismanagement and that has forced a mind set upon the peasant agricultural worker of sort of laying back and waiting because this too will also pass. We have gone through collectives, state farms, and machine tractor stations. Our latest attempt at reorganization which has knocked down, by the way, the number of collectives from about 250,000 to 30,000 in the last five years, is through the development of what are called agroindustrial complexes, in which the former collective farmer becomes a wage earner.

So, I think we have to tend to the nature of agricultural production. I want to say one thing, and I have to recognize that this is clear as day, and that is that in all of these cases more or less except for stringent idiological periods we have always allowed the

private crop to exist even though we take it to be a much more primitive, less historically progressive form of agricultural production. We must realize that in terms of our food staples, even until today, roughly forty percent of the food staples are grown on the private plots.

The third thing that we have done and this is where I would like to start off in terms of turning around agricultural production, the third thing we have done is we have tried to mechanize, and I want to use that in the broad sense because it is not the word I want, we have tried to mechanize industrial production. Not just mechanize it but also introduce scientific advances in Soviet production.

I think as a starting point as minister of agriculture, my first aim would be to get monies to invest in this further mechanization and further application of scientific techniques of agriculture, to agriculture situations. Even though we have mechanized to some extent, it has been a rather crude form of mechanization. It is been rather low-level. It is not coherent, it is not consistent, it is — we have the same old problem that we, if we develop tractors or we produce tractors, we produce a thousand tractors, we have no parts to service when they break down. We do not have adequate transportation supplies nor transportation networks to carry the produce we do have the urban markets. We have been woefully lacking in a methodical application of fertilizers to our agricultural sectors in society. We are much more like a third world than an industrial world in terms of the lack of use of fertilization. We still do not have very scientific management in terms of crop rotation and because of all this, we still have a rather labor intensive agricultural production system and therefore, production

per unit is very marginal.

First of all, what I would like to do is te, I would have to fight very strongly in the party and the government to redirect the investment ratio going to agriculture over heavy industry and even light industry in the way it is been in the past, though we have in the last ten years shifted investment politics so that more and more is coming into agriculture and away from industrial production per se, it still is not anywhere near the break even point even though for both international, political and domestic reasons, agriculture is our "Achilles heel." If we simply do not produce enough we will become more and more vulnerable to dependency upon the west for agricultural production and we will, if we do not have enough food stuffs internally, develop a more unstable regime. There will be lack of support. We have developed a program where the support from the people is going to come at least in some basic way from demand satisfaction and yet we have not been able to satisfy a lot of the basic food demands of large parts of our population.

So, I would first have to fight in the decision making circles to once and for all, recognize that the construction socialism is the construction of an entire society that is self-sufficient and does not have to depend upon especially potential adversaries for crucial parts of its basic resources. That means that we have a high enough industrial base, we have the war technology equivalent to the west, we must now redirect in a major way our investment policy towards agriculture, towards mechanization, towards the infrastructure around mechanization, towards the transportation program, towards the plastic bag program so that whenever the damn fertilizer is packaged it does not

sit out in the lot as it does. We lose one-half of our fertilizers because it rains on paper packages. What I mean by infrastructure, there is a whole series of secondary enterprises that we have to make. Secondly we have to develop an education program among the agricultural workers to teach them the more rational use of mechanization, mechanized planting and harvesting and fertilizer and crop rotation. Even in this day and age its shocking how little and how backward many of our farmers are. As minister of agriculture, I would like to say as an aside, since I probably will be defecting to the west with the next ballet, that I blame the party for this. The party has always insisted that the management of state farms and even the collectives, be people who have strong party credentials and who quite frankly, do not know anything about agriculture. So, I would like to see the development of a special institute that trains managers of agricultural enterprises and trains them in the most up-to-date, modern techniques. Even if we start without investment policy, we start to reap the benefits of fertilizing and mechanization if we have administrators in these three kinds of farms. We have now the agroindustrial enterprises, which are becoming the largest, the state farms and the smaller and smaller number of collectives. If we do not have the right agricultural managers, all the most modern techniques and methods of farming will go out the window.

The second thing that I must do is to raise, rather dramatically, the wage levels of the agricultural worker. Idiology aside, and I want to be pragmatic a minute, what we do is have one hell of a large agricultural working class. We can call them collective farmers, we can call them state farmers, but there, it is an agricultural working class. And, it compares shockingly low in terms of wages, in terms of security, in terms of insurance, in terms of welfare benefits, in terms of living

conditions. It is like a second class, a lower class, an under class compared with the urbanized working class in our country. We are not going to get anywhere in terms of agricultural production until we, the state, show them that we consider them equal citizens to the urban proletariat and we treat them equally in terms of our service, welfare, insurance, and wage policies. Again, this is going to rankle the idiological facts of those people in the party who for some reason see agricultural production as a free, as a traditional kind of production, and I guess we would like to make synthetic foods so they would not have to have farmers. But, to deal with the problem so that we do not increase our vulnerability, our dependency upon the west, we are simply going to have to raise agricultural workers to the same level and bring him in as a full citizen both participating in policies the same as our other citizens and also sharing the distribution of goodies and rewards in our society to the same extent.

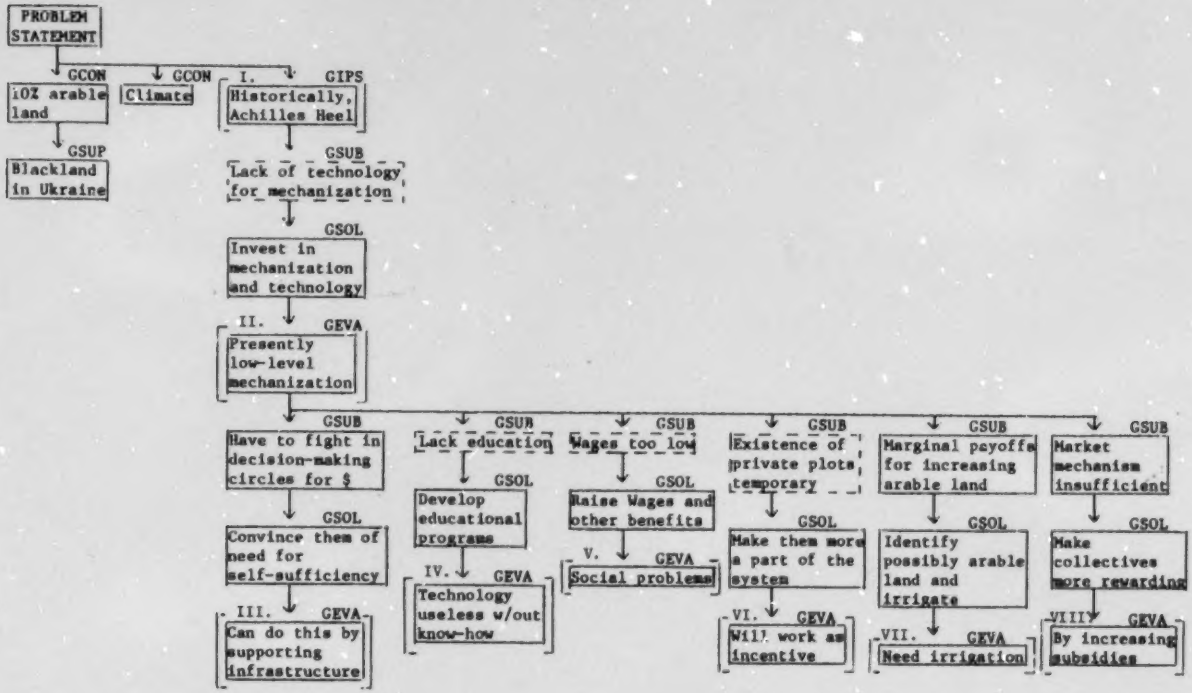
The third thing that I would do would be to work out a system whereby the private plots are not considered a temporary historical phase but are an integral part of our agricultural system. Whether we like it or not, that is where we get a lot of our food stuffs, and I think that we could work it into our system so that in the agricultural, agroindustrial enterprises we are now calling the private lands, could be given to those farmers who are most productive as an incentive to work even harder for the agroindustrial enterprise. As well, I think we need, maybe I mentioned it before but I am going to go over it again, as well, I think we need strong investment, not only in the day to day things that increase production, we also need more investment in research and technology. So that is one area to deal with.

The second area that I think that we have to deal with is the question of what are the marginal payoffs for trying to increase the amount of arable land. I think that by doing a series of studies we can identify by those lands where a massive irrigation would bring them up to an almost productive level of the blacklands and I would target, especially those where just moderate irrigation or little irrigation would be needed to bring them up to a level of production and I would develop a very, very extensive irrigation network for those lands. I think irrigation is a major problem that we really have not dealt with adequately, sufficiently, coherently, and in a centralized manner, believe it or not.

The third area that I think we have to think about is not only the private plots, but also the use of the private market as a mechanism, as an incentive mechanism for further agricultural production. Frankly, right now, a farmer that works on a collective and has a little private plot on the side and sells it privately in the market makes more from the little bit of filling of the private plot and the sales on the market than he does of his full day's work on the collective. If we are going to get rid of this private notion of agriculture, then we have to make collective work much more rewarding even if it means further subsidization by giving inflatably high, artificially high prices to our collectives, to the state farm workers, to the agroindustrial enterprises to those workers and subsidized food stuffs. We have one hell of a problem because what we have been doing is -- given how low the productivity is per person, we have been paying them wages. Even they are low by urban working class standards. We have been paying them wages that are higher than the prices that we get for the food and will it to our people in the urban areas. We have been subsidizing our whole

food program to the tune of twenty or thirty percent. We have to increase that subsidy if we want to get that production up to the point where at some point we would not need a subsidy at at all.

Expert A


PROBLEM STATEMENT
GCON
10% arable land
GSUP
Blackland in Ukraine
GCON
Climate
I.
GIPS
Historically, Achilles Heel
GSUB
Lack of technology for mechanization
GSOL
Invest in mechanization and technology
II.
GEVA
Presently low-level mechanization
GSUB
Have to fight in decision-making circles for $
GSOL
Convince them of need for self-sufficiency
III.
GEVA
Can do this by supporting infrastructure
GSUB
Lack education
GSOL
Develop educational programs
IV.
GEVA
Technology useless w/out know-how
GSUB
Wages too low
GSOL
Raise Wages and other benefits
V.
GEVA
Social problems
GSUB
Existence of private plots temporary
GSOL
Make them more a part of the system
VI.
GEVA
Will work as incentive
GSUB
Marginal payoffs for increasing arable land
GSOL
Identify possibly arable land and irrigate
VII.
GEVA
Need irrigation
GSUB
Market mechanism insufficient
GSOL
Make collectives more rewarding
VIII
GEVA
By increasing subsidies

21

I. GIPS

(RARG) Historically, agriculture has been a problem in the Soviet Union

(RFAC) Problem has been inherited from the time the czars freed the serfs

(RFAC) Agricultural production was low even before then
(RREA) Historically, the aristocracy had no need to fend for itself
(RCOM) Was not like English aristocracy
(RPSC) Never introduced modern methods of fertilization
(RPSC) Never went to enclosures or consolidation of land
(RPSC) Never experimented with crop rotation

(RFAC) Agriculture problem was passed onto peasants so they could do what they willed with the land
(ROUT) They responded with old, inefficient ways

(RFAC) USSR had three different policies to increase agricultural production
(RPSC) Exhortation
(RELA) Campaign for more effort on the part of the peasants
(RCON) Was waste of time and energy
(RREA) Only gave the party a sense of false importance
(RREA) It is encumbant upon the party to develop these campaigns (but they haven't paid off)
(RREA) Party believes that ideological policies can overcome objective limitations
(RCON) I would not use exhortation
(RPSC) Reorganization
(ROUT) Leads to confusion, mismanagement, makes peasants laid back
(RPSC) Reorganized collective state farms, machine tractor stations
(RPSC) Now have agroindustrial complexes, reducing number of collectives and making farmer a wage earner
(RQUA) Have always allowed private crop to exist
(RQUA) Except in astringent ideological periods
(RELA) Is taken to be a more primitive form of production
(RFAC) Private crops account for 40% of food staples
(RPSC) Mechanization
(RCON) This is where I would start my solution
(RELA) Have tried to mechanize agricultural production more
(RELA) Tried to introduce scientific advances in agricultural production

II. GEVA

(RARG) Mechanization low level, crude, inconsistent
(RPSC) If we make tractors, then we have no repair parts
(RPSC) Inadequate transportation supplies
(RPSC) Inadequate transportation networks to carry produce to market
(RPSC) Woefully lacking in methodical application of fertilizers
(RCOM) More like a Third World country in application of fertilizer
(RPSC) No scientific management of crop rotation
(ROUT) Because of all this, we have labor intensive system
(ROUT) Production per unit is very marginal
(RSAS) Would have to fight to redirect investment into agriculture over heavy and light industry
(RQUA) Over last ten years investment policies have shifted to agriculture more
(RQUA) Though still not near break even point
(RQUA) Though internationally, politically, and domestically, agriculture is Achilles Heel
(RRFA) If not enough produced, will become more dependent on west
(RREA) If not enough produced, will develop less stable regime
(ROUT) Will lack support
(RREA) Have developed program where support from people comes from demand satisfaction
(RQUA) But still haven't been able to satisfy force demands

III. GEVA

(RARG) Support infrastructure around mechanization
(RPSC) Support transportation program
(RPSC) Support plastic bag program
(RFAC) Lose when it sits out in paper bags
(RELA) Support series of secondary enterprises

IV. GEVA

(RARG) Need to teach agriculture workers rational use of mechanization
(RELA) Mechanized planting, harvesting, fertilizing and crop rotation
(RREA) Farmers are backward
(RREA) Blame the party for this
(RREA) Management are people that have strong party credentials, and don't know about agriculture
(RCON) Need special institute to train managers
(RREA) If don't have right managers, investment in agriculture useless

(RARG) Large agricultural working class which compares low in wages, security, insurance welfare benefits, and living conditions.

(RELA) Can call them collective farmers or state farmers, it is the working class

(RCOM) Its like a lower class compared to the urban working class

(RSAS) Won't get anywhere in terms of production until the state shows them that we consider them equal citizens to the urban proletariat
(ROUT) This will rankle some Party members
(RREA) Because they see agricultural production as a free and traditional kind of production
(RCON) But we have to do it
(RREA) So we don't increase our vulnerability and dependency on the west
(RCON) Simply going to have to raise agricultural workers to same level and make him full citizen sharing in the distribution of rewards

VI.GEVA

(RARG) Make private plots integral part of system
(RREA) Because it is where a lot of food stuffs come from
(RPSC) Use as incentive for farmers to work harder

VIII.GEVA

(RARG) Have to make collectives more rewarding
(RREA) Now workers gets more from private plot than whole day's work on collective
(RPSC) Subsidize collectives to give artificially high prices
(RREA) To get rid of private notion of agriculture
(RFAC) Wages paid are lower than urban working class
(RFAC) Have been paying wages higher than what is received from food
(RFAC) Have been subsidizing 20-30%
(RCON) Have to subsidize until production is up enough not to have to subsidies

VII.GEVA

(RARG) Identify lands to irrigate
(RREA) To raise levels of production
(RELA) Target areas where little to moderate irrigation would be needed
(RELA) Develop extensive irrigation system there
(RREA) Irrigation is major problem not dealt with adequately sufficiently, coherently, or in centralized manner

Expert B

I think the most difficult part of this sort of problem for a Soviet leader is that the objective is not as clear as your question hints, because solving the productivity of agriculture in technical terms, even in economic terms, is no big problem, given that you can get the land fertile and can rotate it. But in the Soviet Union all these economic problems are political issues and so the objectives are not at all clear because you cannot raise agriculture productivity in the most simple fashion without damaging certain political priorities that you will not be able to ignore. For example, we could probably solve this by simply demanding from the central ministries more financial resources to throw in this direction and then allocate them to increased technology of agriculture, say for example fertilizers, increased industrial machinery to fertilize the land and then reap the harvest and protect the crops, say for example heaters, if our problem is frost or insecticides. We can throw some more money in the direction of increased training for our labor force. All of those things would make sense technically, but none of them will make sense politically. And we'll never be able to do them.

For example, if we industrialize our agricultural production, that will kill off a number of jobs in the countryside, force people to move to the city as the demand for labor in the countryside gets less and will create a huge unemployed mass in the city that our cities can't in any way absorb and therefore will create an even more serious social problem than we have now. This is the problem with all the advanced industrial technology in our countryside. We need to keep our labor in the countryside, since our cities can't absorb it, our industrial sector

can't absorb it. There are no jobs for them. We will have an enormous employed mass. And while that's all right for capitalist countries like Turkey who do not care about their people and can send them overseas to do foreign work, we cannot do that. We cannot do that because the nationalism of the country is too strong and we cannot do it because our social system will not allow us to simply ignore the interests of the peasants that way. And at the same time we already have a very real high unemployment, even though it is invisible because people have senseless jobs. But we do not want to drive that up even higher. Our cities are already enormously overcrowded and we cannot simply build cities overnight. That's why, of course, up until now we have been trying to build the industrial base which will allow us then gradually to siphon off labor from the agricultural sector to increase technological efficiency of agriculture.

Another problem we have got to be careful of is that not only do we need to be careful of not just destroying the jobs in the countryside, which right now gives us a nice cushion for our labor unemployment problem, if we go ahead and make another obvious improvement, for example allow incentive systems to arise in a certain way so as to increase productivity through a material incentive, we have to prevent first of all capital accumulation, which is a real difficulty. If you increase incentives, that allows some to get rich, and as they get rich, if they are allowed to accumulate that capital, say for example buying increased sizes of private plots, you will have the same problem. Fewer and fewer people will be needed in the lands as more and more huge aggregates of land become owned by a single person and we will be back in the days of serfdom again, which we will not allow socially. We will never allow that because we have seen how poor the poorest will become.

At the same time if we institute an incentive system on the collective farms, which is what we want, so as to increase the incentive to work, increase productivity that way, we have the problem of how are we going to do that. Where are we going to get the resources to increase the incentive system unless we raise the price of food, which we can not do socially? One of the major tenets of our social system is to provide food for everyone so that we keep the level of starvation down, down even lower than in the United States. That's one of the real achievements of our system that we won't sacrifice, so we would need to increase incentives, but do it in a way that doesn't raise prices, which creates a real economic inefficiency in our system here.

Another idea would be to let the private plot become a more important source of agricultural output, but that runs the same problem of allowing some to get very rich and it undermines our effort to make the collective the area of real productivity. The private plot again does not take advantage of economies of scale and all the problems that some day we would like to be able to make more efficient through technology. It seems to me the way to do it then, the only politically acceptable and technically acceptable way is to take advantage of the one resource we have, which is labor, and to keep it on the farm, which we have to do socially.

So our problem is really not technological, but it is social. How to make the labor work harder on the collective, as opposed to the private plot. Up until this time we have not been able to solve this social problem. Maybe one way we would do it is to make the incentives in the collective really competitive with the incentives on the private plot. As it is now, people on the private plot can take their goods and

sell them at the bazaars around the countryside and sell them at much, much higher prices than the collective earns and therefore make much more money, and, therefore, it is in their interest to not work too hard on the collective to keep the supply of food down so that the food that comes off their private plots can be sold at a higher price. We have got to provide them with an incentive on the collective which equals the incentive on the private plot and actually attracts them away from the private plot and to the collective, which means simply much higher incentives. To do that the obvious way would be to raise prices of food, which would allow the collectives to sell at a higher price and therefore reap a greater profit and pour it back into the collective. But we cannot do that. We cannot allow prices of food to arise very much. Maybe minimally, but otherwise it would be socially unacceptable. People already are at a minimal level of wages.

So the way it seems we will have to do it is to take the money that we would like to put into technological efficiency and instead pour it into the labor force. Pour it into the labor force in two ways; education, but even more importantly into simple subsidies for the collective to allow the prices to stay low. In other words we are saying, we are going to take money and subsidize the real cost of agriculture. We have low prices for our food that is much below the real cost of labor and of resources and we are going to have to subsidize the real difference between what the costs should be and what they are, so that we can have adequate incentives to the labor force while still maintaining low prices. Hopefully, through that, if we offer really high incentives, and we can only do that through increased governmental subsidies, we can keep the people in the people in the countryside in the short run, increase productivity by offering them

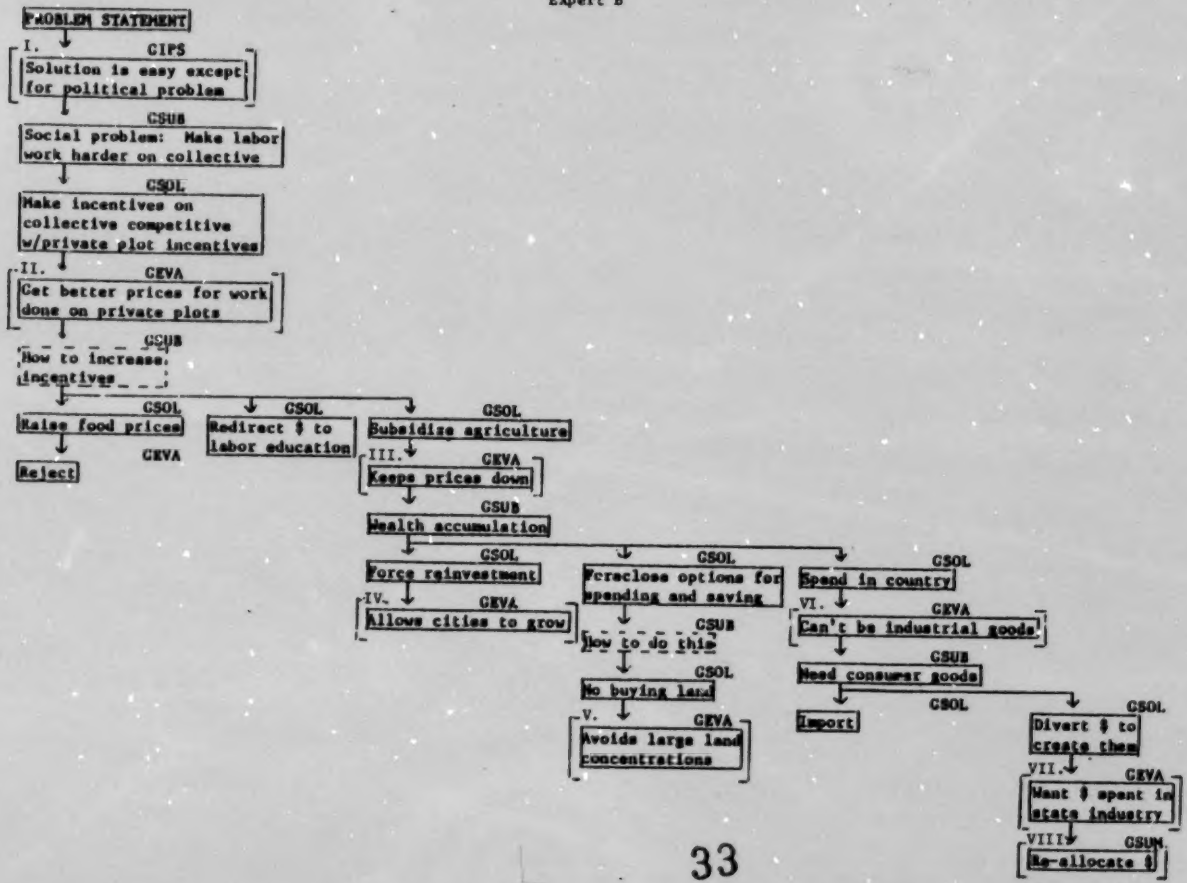
real incentives, and the next problem we would have is we do not want these people getting to accumulate massive wealth as they get increased incentives. We would like to see that wealth that they are going to reap increasingly be invested. We would like to see it invested in industry so that the cities grow, so that in the long run we can get people out of the countryside, into the cities, into more effective and efficient industrial development, so that in the long run we can afford to technologically sophisticate our agricultural sectors, kill off the jobs and move the labor force into other areas of the economy, even though we cannot do that in the short run.

So somehow we have to, if we are going to give these subsidies and increase the incentives a good deal of money is now going to be in the hands of the peasants. The difficulty is now to get it out of the hands of the peasants and into the area of industry we want. Which means we will have to somehow foreclose to them the options to save that money and also foreclose the options to spend that money on things we do not want them to spend it on. How we are going to do that I am not quite sure without a lot of coercion. Probably one way we could do it is to not allow them to buy land. We cannot allow them to buy land. We have got to allow the only large concentrations of the land to be held by the collectives and in the state's hands or we start to run into real political problems with people having real economic power outside of our control. So we will not allow them to buy land. We will not allow the size of the private plot to increase. Instead, we will allow the incentives inside the collective to increase and hopefully compete with private plots and draw them away from it. That means we are going to have to provide them with something to spend their money on in the countryside. And they won't want to buy industrial goods because the

collective will buy industrial goods, so they will want to buy consumer items, but we cannot provide them with consumer items very effectively. So we are going to have to. In the short run we will have to import consumer items and services from the west or from East Europe and in industry try to divert some resources to build consumer items that the peasants will want to buy, like food, well not like food, but like clothing, maybe televisions, I don't know. Whatever they want to buy in terms of consumer items, so that they will spend their money back into state run industries which will allow us then to use that money and invest it in areas we want.

So in the long run it is going to look like the state is going to have to allocate money away from the industrial sector to subsidize inefficient agricultural production in order to subsidize low prices, but in the long run maybe what this will do is allow us to increase our food supply to keep the people in the cities happy, get that money back out of the hands of the peasants by providing consumer goods and then reinvest it in more heavy industrial areas that we would like. So it is a long range program that is going to be slower than a lot of people would like. The only other alternative is what has already been done and that is proving to be massively ineffective which is to invest all our money in heavy industry in the hopes that we can coerce the labor and keep them at a horribly low standard of living until some day down the road we can technologically sophisticate agricultural production, just siphon off that extra labor force and put it into an industrial base, but we cannot do that now.

Expert B


PROBLEM STATEMENT
I.
CIPS
Solution is easy except for political problem
CSUB
Social problem: Make labor work harder on collective
CSOL
Make incentives on collective competitive w/private plot incentives
II.
CEVA
Get better prices for work done on private plots
CSUB
How to increase incentives
CSOL
Raise food prices
CEVA
Reject
CSOL
Redirect $ to labor education
CSOL
Subsidize agriculture
III.
CEVA
Keeps prices down
CSUB
Wealth accumulation
CSOL
Force reinvestment
IV.
CEVA
Allows cities to grow
CSOL
Foreclose options for spending and saving
CSUB
How to do this
CSOL
No buying land
V.
CEVA
Avoids large land concentrations
CSOL
Spend in country
VI.
CEVA
Can't be industrial goods
CSUB
Need consumer goods
CSOL
Import
CSOL
Divert $ to create them
VII.
CEVA
Want $ spent in state industry
VIII
CSUM
Re-allocate $

I. GIPS

(RARG) Agriculture problem would be easy to solve if it were not for politics involved

(RSAS) Could demand finances for agriculture
- (RSAS) Could use money for technology
  - (RPSC) Fertilizer
  - (RPSC) Machinery
    - (RPSC) Heaters
- (RSAS) Could use money for training
- (RCON) These solutions are technically okay, but politically bad
  - (RCON) Therefore, cannot use them
- (RSAS) Could use money to industrialize agriculture
  - (ROUT) Would kill off jobs, creating unemployment
    - (RREA) Force people to move to the city
    - (RREA) Cities can't absorb the people
      - (ROUT) Would create an even more serious social problem
    - (RCOM) This is problem in advanced industrialized countries
      - (ROUT) Need to keep labor in the countryside
        - (RREA) Cities can't absorb them
          - (RREA) Not enough industry jobs
          - (ROUT) Create large unemployed mass
    - (RCOM) This is alright for country like Turkey
      - (RCON) We can't do that
        - (RREA) Nationalism too strong
        - (RREA) Can't ignore peasants
        - (RREA) Already have high unemployment
          - (RQUA) Invisible though
            - (RREA) People have senseless jobs
          - (RCON) Don't want to drive it up higher
            - (RREA) Cities overcrowded already
            - (RREA) Can't build cities overnight
    - (RCON) This is why we have tried to build up industrial base to siphon off agricultural labor

(RSAS) Could allow for incentive system
- (RSAS) Would have to prevent capital accumulation
  - (PREA) Increased incentives allow some to get rich
  - (RSAS) If rich can buy land it results in problems
    - (RREA) Few people needed in countryside if aggregates exist
    - (RREA) Creates serfdom and poor
- (RSAS) Could allow incentives on collectives only
  - (ROUT) Would increase incentives on collectives only
  - (RSAS) Have problem of where to get resources for incentives
    - (RSAS) Can't raise price of food
      - (RREA) Tenet of socialist system to provide food for everyone so there is no starvation
      - (RFAC) Real achievement of our system
  - (RCON) Need to increase incentives, but not raise food prices

(RSAS) Could let private plot become more important source of agricultural output
- (RSAS) Have same problem of allowing some to get very rich
- RSAS) Undermines effort to make collectives the area of real productivity
- (RFAC) Private plot doesn't take advantage of economies of scale

(RSAS) Take advantage of labor and keep it on the farm

II. GEVA

(RARG) Make incentives on collectives competitive with those on private plots
(RFAC) Farmers can sell their goods from priv. plots at bazaars for higher prices than he gets for collective work
(ROUT) Therefore, in their interest not to work too hard on collectives
(RREA) Keeps food supply down so priv. plot food earns more $
(RCON) Have to provide incentives on collectives equal to private plot
(RREA) To attract farmers away from private plots

III. GEVA

(RARG) Given that you can't raise prices, subsidies will provide for incentives
(RREA) Existing low prices below cost of labor resources
(RREA) Incentives will keep people in countryside for the short run
(RREA) Incentives will increase productivity

IV. GEVA

(RARG) Invest in industry so cities grow
(RREA) That way eventually cities will be able to get people out of countryside
(RREA) Eventually will be able to technologically sophisticate agriculture sector and not worry about killed off jobs
(RQUA) Can't do that in short run
(RCON) With subsidies incentives increase and put money into hands of peasants

V. GEVA

(RARG) Large concentrations of land must be in hands of collectives
(RREA) Otherwise real political problems outside party's control will exist
(RCON) No allowing size of priv. plot to increase
(RCON) Allow collective incentives to increase to compete with private plot

VI. GEVA

(RARG) Peasants won't spend $ on industrial goods
(RREA) Because collectives will buy industrial goods
(ROUT) So will want consumer goods

VII. GEVA

(RARG) Provide peasants with consumer items so that they will spend $ in state run industries
(ROUT) That will provide $ to invest in areas that need it

VIII. GSUM

(RARG) State will have to re-allocate $ from industry to subsidize low prices
(RREA) Will allow food supply to increase
(ROUT) Will make city people happy
(RREA) Will get money back by providing consumer goods
(ROUT) Can re-invest in heavy industry
(RCON) Long range program that will be slower than some people like
(RSAS) Only other alternative is investment in heavy industry, which is ineffective
(RREA) Relies on coercion
(RREA) Keeps labor at low standard of living
(ROUT) Method would provide means to eventually siphon labor off when technologically more sophisticated
(RCON) Can't be done now

Expert C

It seems the first thing we would have to do as Minister of Agriculture or Director of Agriculture is ascertain first of all which areas of the country are producing at levels which might be considered maximal for their potential. I assume when we talk about grain, we are restricting it to grain and not to other crops; that is vegetables and all those kinds of things.

So there are several things that can be done then on a research basis, that have to be done on a research basis, first. One is to figure out what areas are producing at what levels and how close those levels are to what we might consider to be a maximum for the area. Those areas obviously then will be the least important to us in terms of trying to maximize production. By the same token we have to take into account types of grain. That is, what is the grain going to be used for. If we want high quality wheat and rye for bread production, how much of the grain is going to go for distillation for vodka (a very important concern in the Soviet Union), how much grain is going to be used for feed grain. And there are obviously other types. All those questions have to be taken into consideration.

By the same token, we also have to decide in fact if the production is meeting the demands of the country. Just because we have been importing in the past does not mean that we are not meeting out own domestic demand. Because of trade relations with other countries we export a considerable amount of our grain. So, that has to be taken into consideration too. So we have several basic things we have to ascertain first. Once we identify those levels that are less productive than other levels, or less productive than their potential at least,

then we have to figure out why. Now, hopefully all this has been done by the myriad of staff which surround the Minister of Agriculture. That is, is the Ukraine under producing? Is Turkistan under-producing? Are the Siberian lands under-producing? And if they are, why are they. That, is is it a problem of water. Is it climatic, in which case even with the most maximally productive land, there is nothing we can drain from it further. Does it have to do with fertilizer? Does it have to do with mechanization. What are going to be the ways in which to best maximize this land at its current level of production?

Let us just assume for a second that the Ukraine is producing as much as it can, given all the factors that have to be considered. That is, given bad climate over the last few years it is still reaching its limits. Within that area we can then try and figure out if there are other ways of producing better strains of things, something which has been done periodically on and off in the Soviet Union with greater or lesser results. But that is a long term kind of problem. That is something you would want people to start on now because you are reaching present maximum potential and you want people to think about it. You want to increase the kind of strains that you can produce.

In the other areas you are going to have to address the problems of fertilizers, chemical fertilizers. If you are going to go the natural fertilizer route then you are going to find areas that are going to produce grain for feed for livestock because that has always been a real problem. That of course, then ties into long-range dietary changes, shifting from bread to meat, those kinds of issues. But those are issues which the Ministry of Agriculture itself would not have the final word on. That would involve other people as well. It would involve

people who would be involved in what we would call marketing and so on, but is something which would be pursued for sure.

Let us assume for the time being that one of our problem areas is Turkistan, that is the land that was reclaimed from the desert. This opens up a political Pandora's box. It is not simply an agricultural problem of Khrushchev's "Virgin Lands" and the political liabilities and viabilities of those ideas. Production in those areas has been declining over time because in fact, agricultural societies that operate on less fertile lands reach a maximum early and then you tend to decline. So the question is, can that be resurrected? Can you reverse that trend? You could do it by agricultural irrigation possibly, although that itself will have its limits given the quality of soil. You might consider, and of course agricultural irrigation is a problem in itself, because you are talking about irrigating a desert which means increasing the amount of water pipe that runs from the Siberian rivers, so again that moves us outside the realm of the Ministry of Agriculture. The other area you would have to touch on would obviously be chemical fertilizers. Assuming that you cannot graze very large numbers of livestock on areas which are ecologically damaged by these, that would of course involve you with yet another ministry, that is not called the Ministry of Chemicals but something along those lines. And that would involve, of course, altering plans to produce more chemical fertilizers, possibly at the expense of other types of synthetic chemicals or chemical compounds or opening new factories in the area, which might in itself prove to be a boon simply because it would allow you to produce a little less than your potential in that area, but market it in that area. Therefore you do not have the problems of transportation and wastage.

This is, by the way, another area which would go under consideration, and that is the study of transportation of the grain which is at record harvest levels in the field is not at record harvest levels in the market all the time. It depends on how it is transported, how efficiently it is transported, and that would again involve us back into yet another ministry, in this case Ministry of Transportation.

It would also involve problems of warehousing. There may be two different ways in which one might want to consider it. If the problem in fact was a distribution problem, primarily within the country, excluding the export of food, assuming for the time being that we just leave Eastern Europe aside, now we leave Afghanistan aside, you know, countries that would be receiving aid, if we assume that the problem might be distribution or a considerable proportion could be reduced through good distribution, what would have to be done then would be to in fact reexamine the whole process by which grain is transported from source to marketplace. It might involve increasing decentralization of distribution, whereby peoples in Central Asia would eat Central Asian grain. People in Moscow area would eat grain from the Black earth region and so on and so forth. But all of those of course are, that is distribution, climatic changes, chemical fertilizer, in fact all of them involve ministries outside.

So the problem is not simply a problem of the Minister of Agriculture confronting the problem. He obviously has to do that then in tandem of collusion with a large number of people. And of course above all this has to be included in the planning agencies since they are the ones who are going to be plugged into at various points in time. That involves a lot of political work. A lot of nitty-gritty type of

stuff. It involves going and making pleas before the planning commissions at various levels. It involves convincing the other ministers that it is in their interest, as well as yours, to shift production or shift allocation of resources within their ministry. By the same token it involves convincing the planning agencies that at mid-plan, let us assume this is not the end of a Five-Year Plan, that at mid-plan they have to in fact shift their own priorities and allocations which reeks a little bit of havoc on everybody and means everybody will scramble around trying to get new supplies to meet your quotas. We will just leave the Soviet agricultural issue for the time and come back to that one.

There is the whole political angle. That is, how does the Minister of Agriculture actualize whatever he sees as problem areas involved with other agencies. To a certain extent that is going to depend on how powerful he is, or I am, it is going to depend on how much pull he has. What kind of committees does he have that can kind of help him along within the Central Committee. What kind of access does he have to the Politburo? What kind of access does he have to not only the heads of ministries, which he would just on a formal basis, but personal access to them. What kind of favors do they owe each other? So, there is the whole political thing. To solve the problem as soon as possible, to do it as soon as possible, may in fact involve defining what as soon as possible is. As soon as possible may be five distribution transportation issues it can be dealt with politically, depending on how powerful and successful this person is, it could be done in maybe five years. If it involves in fact a fundamental transformation of agricultural practices, then it is obviously going to take a much longer time.

Not only would he have to involve himself in the politics of people on whom he or she is dependent, and I actually think it is a women in charge now, but anyway it would also involve dealing with people involved in foreign trade. People involved with the state bank, in other words the financial interests in the country. Because what you are going to have to do is convince them that the exporting of gold or commodities or whatever it is that is being sold in exchange for grain is in fact a drain on the economy. Let us assume that they are sending gold to Argentina in exchange for wheat. Well it would not be hard to convince people that gold would be a drain on the economy. The question is at this point of time is the value of the grain worth the spending of gold for. But you might be able to convince people in the long-run that it is in the financial interests of the state, that in fact they should take these issues of agriculture quite seriously. So, that is an avenue that one would pursue because in fact that gives you kind of another voice in the political spectrum or arena in which you can operate. The more voices pleading your case the greater the chance that you are going in fact to get what you want.

There is another level at which a minister tactfully could pursue this whole problem and that is through the press. Start agitating in the press, writing letters, writing articles and editorials about the need for self-sufficiency in agriculture, the need to break capitalist encirclement and so on and so forth. And in that way, in fact, contribute to grass-roots pressure. Not only grass-roots pressure, in that individuals would then go to their City Councils, to their Soviets or to their Party organizations and say "Don't you think it's a good idea that we be self-sufficient," but also getting to second-level people, staff people, who in fact as they study problems in their area

would take these things into consideration. That is a very subtle way of getting at people and may take years in some cases, but it may also be just what somebody is looking for in a certain time.

So, what you want to do is maximize your plea. You want it to reach as many people as possible. If you keep it to the inner corridors of the ministries it can easily get shelved or bottlenecked. Political rivalries, political jealousies, difference in line on how one pursue an issue, all might in fact cut short, cut off the avenues you have to success.

So a savy minister would first of all spend the first few months figuring out his politics, how he is going to get all this across, how he is going to convince the largest number of people that it is in the interest of the state and the largest number of people to purse his policy or at least an adaptation of his policy. In fact, if he was very wise he might not even come out with a policy for quite a while. He would just let ideas fester and let the people brood about it for a while and let them start appearing in the press or in letters or in resolutions. In the drawing of various peoples ideas. How successful he is in organizing that will in the long run dictate how successful his policies are, unless he is going to be able to claim some sort of breakthrough in new hybrid wheat or new hybrid corn products. He is going to really, when all push comes to shove, have to depend on political support. So, he has got one avenue then that he should be pursuing, and as a minister in fact that should be his primary occupation, because whatever policy comes out of his ministry-the actualization of, implementation of, is all important. Within his ministry then he has to deal with the agricultural problem.

We talked about first of all studying what the problem is. Then he can have his various staff agencies in fact start studying the problems. He would have people involved within his own agency on transport, water, seed, fertilizer, so on and so forth. And begin to, in fact, get a sense of what regions have what problems. That, in turn, can be translated into politics again, that is going to regional ministers, republic ministers, where they happen to be and saying "Look, these are the problems you are having, right?" and the guy would go "yeah, yeah, yeah." "These are possible solutions" and see what can go on. Again, appealing to a broad number of people who have inputs at various levels of the planning process.

The technical issues are really something that are going to be beyond the minister until the final stages. It is like every bureaucrat, his primary concern is not going to be sitting down at night and figuring out the problems, unless he happens to be an agronomist by trade and is interested in these things. His primary concern is going to be politics, and getting things pushed through, getting ideas over to people.

So, when we come to specific issues then we are, in fact, talking not about the minister but about his staff. And they are obviously going to have to approach the problem first of all from the point of view of study, looking at old studies, seeing what has been done, looking at various policies. For example, under Khrushchev, what succeeded and what did not by irrigating certain lands, by dramatically introducing new crops to an area. People who are going study hybrid seeding, what is going on, they are going to take trips to the United States and to France and to wherever else, going to state to state and

country fairs, nothing that low, but going around to farmer's cooperatives and trying to figure out, in fact, what people are doing. So each of them, then, is going to have to confront a very specific problem, and those problems could take a considerable amount of time to work out.

In other words, one could begin to try and implement an umbrella policy of saying "Look, we are going to push for more chemical fertilizers" or we are going to try and change the types of grains that we are going to grow in different regions, or we are going to try and use better agriculture machinery. But all of those, of course, are again long-range problems. That is, you have to gear up a chemical industry, you have to gear up a tractor industry. You have to gear up the building of irrigation ducts, and things like this.

So that, in fact, as the problem suggests do it as soon as possible, that suggests a sense of urgency, and that is of course the important aspect of it, but we were talking about fundamental transformation of the use of land which is in fact a long-range problem, and it involves waiting. It might also involve in fact long periods of experimentation. That is, let us assume that a Minister gets to push on various different levels. His staff sits down and does a study and they decide that for different regions, and surely that is the only sensible way they could approach it is regionally because in different regions there are different types of solutions. Well, the party's had enough experience of herculean attempts at changing agriculture which did not work out too well to know, in fact that they do not want to go that fast, that they do not want to invest the money, the effort, if it is going to be a bust. So, one thing they are going to have to do then is

to pick prime experimental areas. And experiments in agriculture are not one or two year experiments. Experiments in agriculture would have to run five or ten, depending on the kind of climate that happened. If in the Ukraine, for example, they had five good years in a row, that doesn't allow you to test the problem, because what happens when you finally do get those four years in a row of drought, what is going to survive, what is going to work? So, it is going to involve on the part of the ministry and on the part of the state and party a commitment to long-range experimentation, and a commitment to the realization that they are going to have to in fact co-exist in the world market long enough to neutralize these problems.

There is yet another problem that has to be faced, and this really comes in the later stages of this process, that is the best ideas that come out of planning agencies have to be actualized. That is, you are going to have to convince peasants in collective farms and state farms that, in fact, they should be growing these kinds of crops, explain to them why it should be done. Because without explaining to them what you would like to see done, and without getting their ideas, it has got to be a kind of give and take process. Without their ideas you might in fact have overlooked things which in books and in ministries and in plans all seem to make sense, but in fact when you go to look at the specifics of the land involved which only the peasants know to its full extent, you are going to run into problems. You might find that their problems have to be taken care of. By the same token, peasants are not a notoriously radical lot. That is, they are not the kind who suddenly pick up and shift the methods of production or the way in which they organize work. In fact, it would involve for them not only changing the organization of work and learning to possibly work with new machinery or

to deal with new problems of irrigation or to deal with new seeds, it might also, in fact, change the financial structure of the collective farm.

So, all these issues would have to be ironed out, if one were to seriously implement this policy. The stage at which this would happen would probably depend to a certain extent on the success of the minister at first getting them through his fellow ministers. Secondly, working on a broader spectrum of planning and financial agencies and then working with people at the republic level. You do not necessarily want to save the peasants for last, because if your policy is wrong and the peasants can prove to you that it is wrong, then you have got to go back and do it over, so at some point in that time you are going to have to, and this is where the press of course would come back and plan, begin to agitate people with these ideas, begin to lay them out in the press, begin to maybe hold conferences of chairmen of collective farms, or bring people to various regional centers for training sessions and so on.

All of this assumes, of course, a very steady and even flow, that is things are going to remain basically intact during this rather prolonged period of first change, then experimentation, then implementation. It is probably not very likely that that would happen. Just what has happened recently, the Americans deciding that they are going to cut off grain shipments and commercial relations with the Soviet Union, would involve within the country, of course, a shift. All that would involve various agencies suddenly going "Oh, well. Maybe this policy is not so important to me. Maybe we should shift it this way." So, one is going to have to assume in this planning process that

there is a certain maintained status quo, that things aren't going to change.

Assuming that we get through all of this process and assuming that we can then set up experimental stations, maybe in the Ukraine the experiment has to do with new seed grains maybe in Turkistan it has to do with fertilizers and changing irrigation practices, maybe in Siberia it has to do with plowing deeper and using new seeds, and so on and so forth, assuming that we get to that stage of this game then the problem is of course, reading the results, seeing how, in fact, how successful it has been. Assume that 50 percent of the experiments are a bust, then that involves the process of kind of beginning over again. It is going to take a pretty savy politically-oriented minister to get these ideas or to be able to transform failure into an appeal for another chance at success and it is going to have to involve a commitment on the part of the party and the state to the reasonableness of that success and the necessity of it. So if that process in the failed areas were to continue again, well then we would have another period of prolonged experimentation and let us assume that 15 or 20 years down the road we have got ourselves a policy. Something that we think, in fact, is going to work. If the minister's still alive by then, well that is great, but more likely than not we have gone through a number of different ministers who hopefully are committed to the same problem. Then the process simply becomes one of implementation. A well-planned-out policy would already be able to meet the needs. That is, plans for let us say new tractor factories would have already been drawn up or the conversion of old tractor factories to the production of the new tractors would already be taken care of. But none of that is going to come until the very end when everybody has a good idea, because no one wants to change

an automobile factory, let us say, to a tractor factory if tractors are not going to be the kind of thing that you need, to invest the amount of capital and money in that. So, even once a policy is decided upon and once a policy has been shown to be the most effective to meet the needs of the country, then we have another waiting period. So, to do it as soon as possible might involve, in fact, a generation conceivably.

It might also, and it depends on the political characters here, might also happen much faster, but it might also be much more of a disastrous policy, and that is ala Khrushchev, where you in several years storm the desert and you fertilize it and you irrigate it and you succeed in the short run, but three years down the road it all blows away in a dust storm. So, assuming that the lesson has been learned from the "Virgin Lands" campaign then we are going to have a much more prolonged, much more careful kind of study, it would seem to me that would be most likely, because of the fact of the changing age group of the Soviet bureaucracy. They are increasingly well-educated, increasingly well-educated in technical fields, increasingly staffed by people who are capable of making fundamental technical and complex technical decisions. Education, of course, involves caution, so that these people on the one hand would be able to meet the problem head-on, but on the other hand would be cautious about moving ahead.

All this has assumed a certain status quo to this point. There are other problems which have to be considered at the same time. These are long-range problems. These problems have to do with the distribution of the population in the country. They have to do with the distribution of the population in the country. They have to do with very different level of birth rates in different parts of the country. That is,

certain parts of the country are growing much, much faster than other parts of the country.

For example, in the Central Asian lands the birth rate is twice that of the rest of the country. So, what you are talking about here is the largest growing demand in an area which in fact is not the most fertile. It works okay in parts of Uzbekistan and places like that for cotton, but for grain it is not necessarily as good. But by the same token grain is not the fundamental food of those people. Rice is the fundamental food of most of those people. And while bread has made incredible inroads into Central Asia because of the influx of Russians and Ukraininans and Bylorussians, etc., rice still remains an important staple in the diet.

So, the question is, 100 years down the road are Russians and Slavic peoples going to be a minority? In fact, is European Russia going to be no longer the most densely populated area in the country? Is Central Asia, in fact, going to be the kind of new growth region? It already is that, but is it going to continue to be that 20 years down the road, 100 years down the road? So, one would, and this would probably be done much less by the Minister of agriculture, these would be the kinds of problems he would have to face when he goes to a planning agency. And that is, adapting the kind of agriculture policies to the fundamental and long-range goals of the state, the independence of certain regions, the decentralization of industry, agricultural production, and so on and so forth.

These are problems which are going to have to be addressed somewhere, but may not, in fact, come into immediate problem-solving. They may not be manifest for quite a while. But then again they might. There might be somebody who might say "I don't see the sense of increasing the agriculture in the Ukranian lands at the expense of Central Asia because if we do it in Central Asia what we can do then is have local production, local distribution. It will reduce the cost of food. And it will diversify the economy. All of which will lead to increasing the kind of republic autonomy in an economic sense. And assuming that the planners have maintained their desire to keep the long-range goals of communism, that is, being a kind of de-centralized economy, then that might be an issue they might consider. Then again, they might have a very different perception. They may not want all these Central-Asian types having their own full economy, not only grains but cotton and factories and oil fields and gas fields. Maybe, depending on what is happening in Central Asia or in Afghanistan or in Iran, they may think "Well, no, maybe we should keep the food elsewhere."

So there are going to be kind of long-range fundamental political decisions at some level, and not that of the minister, but somewhere are going to have to be considered and that he at least is going to have to address. He is going to have to be able to read these signals well enough to implement a policy which will be successful. Surely one area where he is going to have to consider this would be Siberia, which is really one of the fastest growing non-Islamic sections of the Soviet Union. You cannot grow much in most parts of Siberia. So, what you are going to have to do if you are going to start to grow things in Southern Siberia is develop strains, develop good planting techniques and then

develop elaborate systems of transportation and storage and warehousing and so on and so forth. All these are going to be decisions that the ministry is going to have to consider and that when he goes to talk to people asking for political favors or making political deals or convincing people of the the political necessity of his plan versus somebody elses plan. He is going to have to keep these in mind.

Up to this point, too, we have also assumed that the ministry would somehow be unified in its opinion, and that is simply idealistic in the extreme. There would obviously be multiple opinions about what should be done. Some of them may eminate from agencies of their own interests. That is, people want to push chemical fertilizer, and they might adopt the old Khrushchev line that to push chemical fertilizers means make more chemical plants which mean be able to make more synthetic products which means being able to meet consumer demands for more goods, and try and argue their case as part of a larger cases. But by the same token other people in the Ministry of Agriculture may, in fact, be willing to tolerate chemical fertilizers but not want to see a lot of synthetic products introduced. So they may want to balance this policy off against another.

Then again, they may divide on very fundamental lines. That is, that the whole issue of independence and dependence may, in fact, involve whole schools of thought. Some people might say that dependence is inevitable in any economic world system. Even Lenin said this. Everybody knows this is the case and therefore is the investment we are going to make in maximizing grain potential worth the results. Are we going to make in maximizing grain potential worth the results? Are we going to have as we do in every kind of production system a declining

amount of output per ruble invested and have we reached maybe that saturation point already where our money is better spent producing other things? Producing things on which the western societies are dependent and which we can exchange, which will override political considerations. Because grain is not like certain other types of things, where one country tends to have a monopoly. There may always be Argentinian grain producers who are willing to sell to anybody for any price regardless of their ideology. So, that question is going to have to be addressed and it's probably going to involve a coalition of different interest groups. Others may say that the investment is worthwhile, that independence will free the Russians from involvement in the west, but all of this, of course, has assumed that the Russians are not, as they always have historically since WWII at least, a few years after WWII, been selling grain to the Eastern Europeans or to the Cubans, or in times of certain need to the Cambodians or Vietnamese. That is, the use of grain for very important high priority foreign policy matters or decisions.

So, around all of these different questions, which are fundamental questions not so much of agriculture in first of all Soviet society, socialist society in general, in the socialist world system, and then within the world system as a whole, these are going to involve fundamental ideological debates. It may be, in fact, that the minister will never be able to get past this point. That he will never be able to in fact forge a solid opinion from out of his ministry or forge a coalition of interests in which people who think like him or her are going to cross agency/cross ministry coalition which is going to be able to defeat this other cross ministry coalition or possibly there would be a third coalition of some sort.

So, all of these then are issues which are going to have to be dealt with, starting from the most fundamental studying the problem, then of garnering political support, then of being able to read the political system and to a certain extent being able to forecast.

This idea I have suggested about fundamental arguments over the nature of Russian agriculture vis-a-vis the rest of the world involves fundamental questions about the future prospects of socialist development and capitalist or communist expansion. That is, is the third world in the throws of world revolution? Is it in the process of kicking colonialists and capitalists out? And, if it is, then what should our agricultural policy be vis-a-vis that? Or, has the world stabilized for the foreseeable future. That is, is the capitalist system, despite its bruises, going to work and survive, and if it is then what are our problems? So, what may become an issue of how much grain to produce in the Ukraine or other areas or should we or should we not be dependent or independent in these areas is going to involve fundamental political decisions. It is going to involve broad ideological questions as well; the nature of world revolution, the future of world revolution, the nature of interdependence between capitalist and socialist states. Is the policy of peaceful coexistence a long-range policy, or is the policy of peaceful coexistence going to fade in the near future? And if it does fade, then whose going to withdraw. Is it going to be us or them? What at first seems like a reasonably simple process could, depending upon the kinds of issues that are being thought about in the Soviet Union today in these various planning agencies and in the political bodies that have to deal with these questions, become very fundamental. As the problem suggests, given today, unquestionably these latter problems would become of

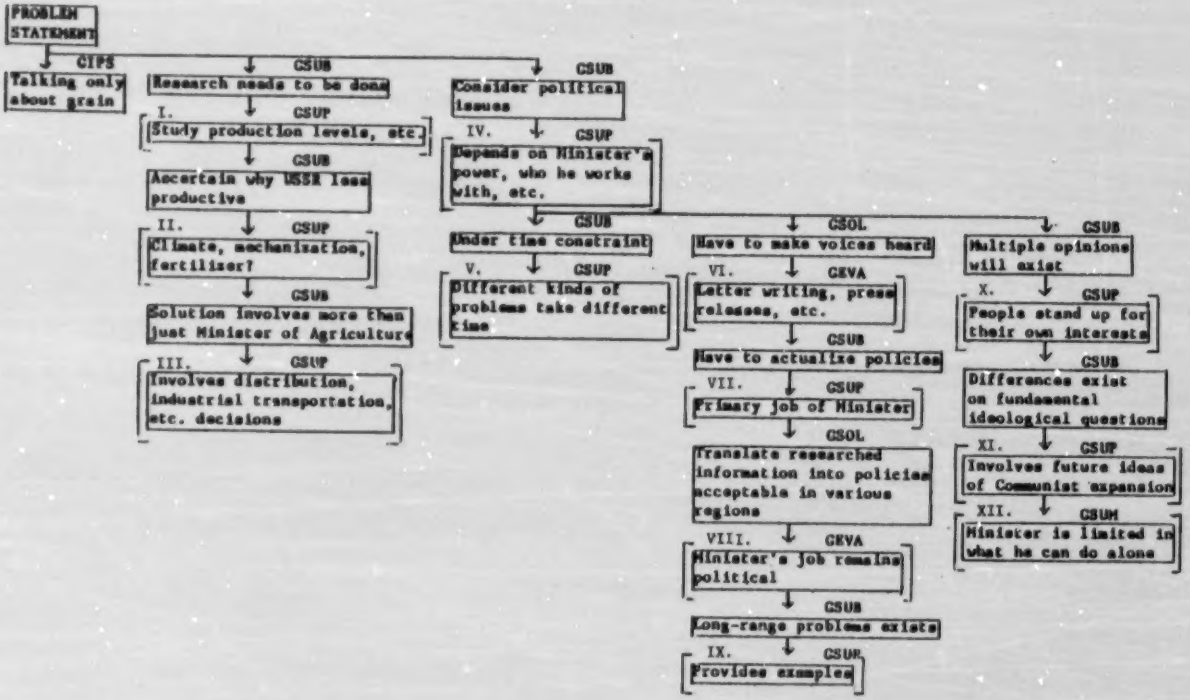
fundamental importance in the debates in the Politburo because it involves trying to fit Soviet society into the evolution of world history. And that is going to be a very long-range, fundamental problem.

It may, of course, involve fundamental political changes. Not changes in the ideology, not changes in the political structure necessarily, but changes in the coalitions that have operated since the death of Stalin. Depending on the strength of the hard-liners and the soft-liners in the Politburo today, or on the Central Committee, this very issue could, in fact, be a gigantic political football for two very different views of what Soviet society should be. That is, a more relaxed liberal consumer-oriented society or, a society that is more defense oriented that is more Stalinist in its organization, which is less tolerant of everything from Elton John to bluejeans to black-marketeers.

So that the timing of this problem, in fact, coming as this problem does right now, and given the fact that Brezhnev and Kosygin and the other people are about to die could be one of the major issues around which future political alignments are going to be put together. Then again, it might be something that people basically agree on. That is, the experience with the fickle Americans, as they like to call them, would suddenly point out that you cannot trust these people. We are going to have to retrench. We are going to have to, in fact, become independent.

So, it really depends on things of which we know very little until after the fact. That is, movements within agencies. The demands of everyone from consumers to middle-level staff people and how they are ready to deal with what is going on in the world. How they are seeing the nature of political change within the world. For that matter how they are seeing the nature of change in demand for agricultural goods. One could kind of reverse the situation that we should maximize our production because we want to enter the world, because Africa and the Mid-East are engaging in revolutionary processes. We should be best equipped to help them change their agricultural system and to support them with food. So you can get all sorts of strange hybrid kinds of arguments out of this. And the minister, whoever he is, is going to have a hell of a time putting all of this together. The staff and technical issues he can delegate and deal with. He can deal with his fellow bureaucrats hopefully, his fellow ministers, but there is a point at which there are some things which are going to be simply beyond his control. They are going to involve larger issues of society, and despite the best of intentions he could fall flat on his face.

Expert C


PROBLEM STATEMENT
CIFS
Talking only about grain
CSUB
Research needs to be done
I.
CSUP
Study production levels, etc.
CSUB
Ascertain why USSR less productive
II.
CSUP
Climate, mechanization, fertilizer?
CSUB
Solution involves more than just Minister of Agriculture
III.
CSUP
Involves distribution, industrial transportation, etc. decisions
CSUB
Consider political issues
IV.
CSUP
Depends on Minister's power, who he works with, etc.
CSUB
Under time constraint
V.
CSUP
Different kinds of problems take different time
CSOL
Have to make voices heard
VI.
CEVA
Letter writing, press releases, etc.
CSUB
Have to actualize policies
VII.
CSUP
Primary job of Minister
CSOL
Translate researched information into policies acceptable in various regions
VIII.
CEVA
Minister's job remains political
CSUB
Long-range problems exists
IX.
CSUP
Provides examples
CSUB
Multiple opinions will exist
X.
CSUP
People stand up for their own interests
CSUB
Differences exist on fundamental ideological questions
XI.
CSUP
Involves future ideas of Communist expansion
XII.
CSUM
Minister is limited in what he can do alone

55

I. GSUP

(RARG) Have to do several types of research
(RSAS) Have to figure out what areas are producing at what levels and which are at maximal levels
(RSAS) Areas producing at maximal levels are least important right now
(RSAS) Have to take into account different types of grain
(RELA) Have to consider what they will be used for
(RPSC) High quality wheat and rye for bread
(RPSC) How much is needed for vodka
(RPSC) How much for feed
(RSAS) Have to decide if production is meeting demands of the country
(RREA) Importing in past does not mean not meeting domestic needs
(RREA) Export grain now because of trade relations

II. GSUP

(RARG) After identifying areas of low productivity, must figure out why
(RSAS) Hopefully this will be done by staff
(RELA) Examine if or why Ukraine, Turkistan, Siberia under-producing
(RPSC) If so, is it water
(RPSC) Is it climate
(RQUA) If climate, then there is nothing to do about it
(RPSC) Is it fertilizer
(RPSC) Is it mechanization
(RCON) Must find out the best ways to maximize land production
(RPSC) Consider the Ukraine producing as much as it can given all factors
(RELA) Given it has had bad climate, it is still reaching its limits
(RSAS) Within that area figure out ways of producing better strains
(RFAC) This is something that has been done periodically in past with greater and lesser results
(RCON) It is a long term problem
(RSAS) It is something you want people to start working on now
(RREA) Because now reaching maximum potential
(RCON) Want to increase the kinds of strains you can produce
(RSAS) Have to address the problem of fertilizers
(RELA) Chemical vs. natural fertilizers
(RPSC) If natural, then have to find areas to produce grain for feeding livestock
(RREA) Because that has been a real problem
(RSAS) Decisions tie into long range dietary changes
(RPSC) Like shifting from bread to meat

III. GSUP

(RARG) Solution involves more than just the Minister of Agriculture
(RELA) Involves people in marketing, etc.
(RSAS) Even though it involves Agriculture Minister does not decide alone, the problems must still be pursued
(RPSC) Assume a problem in Turkistan
(RFAC) Land which was reclaimed from desert
(RSAS) This opens up a political Pandora's box
(RREA) Because this is not simply an agricultural problem
(RREA) Goes back to Kruschev's Virgin Land Act
(RFAC) Production has been declining
(RREA) Because less fertile lands reach maximum early and then decline
(RSAS) So problem is if land can be resurrected
(RSAS) Could by irrigation
(RQUA) Will be limited by quality of soil
(RQUA) Irrigation is a problem
(RREA) Irrigating a desert
(RREA) Means running a water pipe from Siberia
(RCON) Moves outside the realm of Ministry of Agriculture
(RPSC) Consider chemical fertilizers
(RFAC) Can't graze livestock on land ecologically damaged by chemicals
(ROUT) Would have to consult another ministry about this
(ROUT) Would alter plans to produce more chemical fertilizers
(RQUA) Possibly at the expense of other types of synthetic compounds
(ROUT) Could effect opening new factories
(ROUT) Might prove to be a boon
(RREA) Because you could produce a little less in that area, but you could market it in that area
(ROUT) Don't have to worry about transportation or waste
(RPSC) Transportation of grain has always been a problem
(RFAC) Record grain harvest levels in the field are not always at record levels at the market
(RREA) It depends on how efficiently it is transported
(ROUT) Would bring us again to another ministry
(RELA) The Ministry of Transportation
(RPSC) Problem of warehousing
(RSAS) Two different ways of considering this problem
(RPSC) Problem of distribution
(RELA) Primarily problem within the country
(RQUA) Excludes the export of food
(RQUA) Leave out Eastern Europe, Afghanistan, and countries that would be receiving aid
(RSAS) Re-examine the whole process by which grain is transported from source to market place
(RPSC) Might involve decentralization of distribution
(ROUT) So people in Central Asia can eat Central Asian grain
(ROUT) People in Moscow would eat grain from Black earth region
(RCON) All these things, climatic changes, distribution, chemical fertilizers, involve other ministries
(RCON) Problem solution will involve collusion with large number of people
(RSAS) This all has to be included in the planning commissions
(RREA) Because they will all be plugged in at various point in time
(RELA) Involves a lot of political work
(RELA) A lot of nitty gritty work
(RPSC) Involves making pleas before the planning commissions
(RPSC) Involves convincing other minister that it is in their best interest to shift produciton or allocation within their ministry
(RPSC) Convince agencies to shift priorities mid-plan
(RQUA) Assume it isn't end of Five-Year plan
(ROUT) Wreks a little bit of havoc
(ROUT) People will have to scramble to meet new quotas

IV. (GSUP)

(RARG) How the Minister of Agriculture actualizes policies depends on how much power he has

(RPSC) What kind of committees does he have that can help him

(RPSC) What kind of access to Politburo

(RPSC) What kind of access to other heads of ministries
(RQUA) Not formally, but personally
(RPSC) What kinds of favors owed

(RCON) So there is the whole political issue to be considered

V. (GSUP)

(RARG) Different kinds of problems take different amounts of time to solve

(RPSC) Distribution/transportation problem may be solved politically
(RQUA) Depends on how powerful and successful the minister is
(RSAS) Could be done in five years maybe

(RPSC) Problems involving a fundamental transformation of agricultural practices will take a longer time
(RREA) Because would have to involve politics of people who minister is dependent on as well as people in foreign trade
(RELA) People involved with state banks, financial interests, etc.
(RREA) Because will have to convice that exporting gold, etc. in exchange for grain is drain on economy
(RPSC) Sending gold to Argentina in exchange for gold
(RCON) Wouldn't be hard to convince people that gold would be a drain on economy
(RCON) Question is at particular point in time is value of grain worth spending gold

(RSAS) You might be able to convince people in the long run that it is in the financial interest of the state to take these issues seriously
(RREA) That would give you another voice in the political arena to work with

VI. (GEVA)

(RARG) The more voices you have pleading your case the greater the chance of you getting what you want

(RSAS) Minister can pursue this problem through the press
(RELA) With people who only share basic concern and party line
(RPSC) Start agitating in the press
(RELA) Write letters, articles and editorials
(RELA) Write about the need for self-sufficiency in agriculture
(RELA) Write about the need to break capitalist encirclement
(ROUT) Will contribute to grass roots pressure
(RELA) People will go to their City Councils, or party organization and say that they want self-sufficiency
(RELA) But, people will also be getting to second level staff who study who study the problems and take what these people say into consideration
(RCON) Subtle way of getting to people
(RQUA) But may take many years
(RQUA) Though might be just what someone is looking for at a certain time
(RCON) Want to maximize your plea
(RELA) Want to reach as many people as possible
(RREA) If you keep it in inner corridors issues could get shelved
(RREA) Might get shelved because of political rivalries or jealousies

(RSAS) A savy minister would take time to figure out politics
(RELA) How he is going to get all this across and reach large amount of people
(RSAS) Very wise minister may take a long time to come out with policy
(RREA) Let ideas fester
(RREA) Let things show up in press
(RFEA) Can maximize appeal when it comes to voting
(RSAS) How successful he is in organizing will dictate success of policies
(RQUA) Unless he is able to report a new breakthough
(RREA) In the end he is dependent on political support
(RCON) This is one avenue that should be pursued

(RARG) Primary job of minister is to actualize policies

(RREA) Implementation of policies is all important

(RSAS) Then, within his ministry he must deal with agricultural problem
(RELA) First studying what the problem is
(RELA) Have staff start studying the problems
(RELA) Have people involved in transportation, water, seeds, etc.
(RREA) So they can get a sense of what regions have what problems
(ROUT) Then this can all be translated into politics again
(RELA) Means going to regional minister and pointing out their problems and possible solutions
(RSAS) Again, have to appeal to broad number of people
(RSAS) The technical issues are something that are going to be beyond the minister until the final stages
(RREA) Like every bureaucrat, primary concern is not figuring out the problem
(RQUA) Unless he happens to be an agronomist
(RCON) Primary concern should be politics
(RSAS) When talk about specific issues, really concerned with staff
(RELA) Staff will first have to approach problem from point of view of study
(RELA) Look at old studies, various policies
(RPSC) Khruschev's plan
(RPSC) Look at irrigation studies, hybrids, etc.
(RPSC) Take trips to see what people are doing
(RELA) Each staff member take a very specific problem
(RSAS) Each problem could take a considerable amount of time to work out
(RELA) Each one could try to implement an umbrella policy
(RQUA) But they are long range problems
(RPSC) Have to gear up various industries, i.e. chemical, irrigation ducts, etc.

(RSAS) Though the problem suggests urgency, when talking of fundamental transformation of land, it is long range problem
(RREA) Solutions will involve experimentation
(RREA) Different solutions for different regions necessitate experiments
(RSAS) Only sensible way to approach it is regionally
(RREA) Different regiouns have different types of solutions
(RSAS) Party has had enought experience in herculean attempt that attempted to change agriculture that failed
(ROUT) So, they don't want to spend the money to fast
(RREA) Because they don't want to invest money in a failing operation
(ROUT) So, they are going to have to choose prime experimental areas
(RREA) Agricultural experiments have to run five or ten years
(RQUA) It would depend on the climate
(RPSC) If had five good years of climate in Ukraine, then would not allow question to be tested
(RREA) Because you wouldn't know what works in drought

(RCON) IT is going to involve a committment from the ministry, state and party to long-range experimentation

(RCON) Requires commitment to realization that they are going to have to co-exist in the world market long enough to neutralize these problems

(RSAS) The best ideas that come out of the planning agencies have to be actualized
(RELA) Have to convince peasants in collectives and state farms to grow kind of crops chosen and why they should do it
(RREA) Because without explaining to them what should be done you may have looked over some things they feel are important
(RELA) Has to be a give and take process
(RREA) Things that make sense in books may have overlooked the specifics of the land
(RCON) Certain things that only the peasants know
(RFAC) Peasants are not a radical lot
(RREA) They do know shift methods of production or ways they organize work
(RELA) Would involve not only changing organization of work, but also possibly learning to work with new machinery or new problems of irrigation or seeds
(RELA) Have to change the financial structure of the collective farm
(RCON) All these issues would have to be ironed out if want to implement new policies
(RSAS) The stage at which this would occur depnds on the success of the minister at getting his policies passed by fellow ministers
(RELA) Then on a broader spectrum of planning and financial agencies and then working with people at the republic level
(RQUA) May not want to save the peasants for last
(RREA) If policy is wrong and peasants can prove it, then you have to go back and do it over
(RCON) Press would come in here again
(RELA) MAy have to agitate people with these ideas
(RPSC) Conferences with chairmen of collectives
(RPSC) Bring people in for training
(RQUA) All of this assumes stdy flow from change to experimentation, to implementation
(RQUA) Not likely that this will happen
(RSPC) Like what happened when America cut off grain shipments and commercial relations with USSR
(ROUT) Country had to make shifts
(RCON) Going to have to assume a certain status quo
(ROUT) Then set up experimentation
(RPSC) Maybe in Ukrain with seeds
(RPSC) Maybe in Turkistan with fertil.
(RPSC) Maybe in Siberia with plowing and seeding

VIII. (GEVA)

(RARG) After experiments have been performed, takes a politically savvy minister to get new ideas across
(RSAS) Assume 50% of experiments are bust
(ROUT) Then will have to begin process all over again
(RSAS) It will take a pretty savvy minister to transform failure into another chance for success
(RFAC) If another period of experimentation, then another prolonged period before solutions are found
(RELA) Assume 15 or 20 years down the road we get another policy
(ROUT) The problem becomes one of implementation
(RFAC) A well-planned policy will be able to meet needs
(RPSC) New tractor factories will be already taken care of
(RCON) None of this will happen until the end when everyone knows what is needed
(RREA) Because no one wants to invest in things that aren't needed
(RCON) Even after a policy has been decided upon and proven effective there is another long waiting period
(RCON) Therefore, as soon as possible might involve a generation
(RQUA) It might, however, happen much faster
(RQUA) It might also be a disastrous policy
(RPSC) Like Kruschev's work in the desert
(RELA) Succeeds in the short run, but fails later
(RSAS) Assume a lesson learned from the Virgin lands campaign
(ROUT) Going to have a much more careful period of study
(RREA) Changing age group of Soviet bureaucracy
(RREA) Increasingly well educated and capable
(RCON) Education means caution
(ROUT) These people will be better able to meet problems
(RQUA) But cautious

IX. (GSUP)

(RARG) Several long-range problems exist

(RSAS) Distribution of the population is an issue to be considered
(RPSC) Different level of birth rates in different parts of country
(RELA) Certain parts of country growing much faster than others
(RPSC) Central Asian lands birth rate twice that of rest of country
(ROUT) Largest growing demand in area not most fertile
(RFAC) Not a problem in Uzbekistan for cotton, but for grain it is not as good
(RQUA) Grain is not the fundamental food for those people
(RFAC) Rice is the fundamental food
(RQUA) Bread is making big gains
(RREA) Because of influx of Russians, Ukrainians, and Bylorussiens
(RFAC) Rice still is staple
(RCON) Question is population density 100 years down the road
(RPSC) Russians and Slavs a minority?
(RPSC) European Russia no longer the most dense?
(RPSC) Central Asia still growth region?
(RCON) These are questions the minister has to ask
(RELA) Having to adapt the policies to the long-range goals of the state, regions, etc.
(RQUA) May not have to be addressed in immediate problem solving
(RREA) May not be manifest for awhile
(RPSC) May be person who will bring it up
(RREA) TO increase the republic autonomy
(RSAS) If decentralized economy desired, might be considered
(RQUA) May not want it
(RELA) May not separate full economies
(RELA) Grain, cotton, etc.
(RSAS) Depending on political situation may decide to keep food elsewhere

(RCON) There are going to be long-range fundamental issues to be considered
(RQUA) Not neccessarily by the minister
(RELA) Going to have to read signals to implement a policy that will be successful
(RPSC) One area to be considered is Siberia
(RFAC) One of the fastest growing non-Islamic sections of Soviet Union
(RFAC) Can't grow much in Siberia
(ROUT) Have to develop new strains, planting techniques, etc.
(RCON) All these are decisions for the ministry to consider
(RREA) So he can use this to ask for political favors and get his plan approved

(RARG) There will be many opinions about what should be done
(RREA) Eminate from agencies with their own interests
(RPSC) People might want to push chemical fertilizer
(RPSC) Might adopt old Krusch. plan to have more chemical plants
(ROUT) Be able to make more synthetic products
(ROUT) Be able to meet consumer demands for more goods
(RSAS) People from Ministries of Agriculture may be willing to accept chemical fertilizers
(RQUA) But they may not want to see a lot of synthetic products produced
(ROUT) So, they might want to balance this off with other parts of policy
(RSAS) Opinions might differ because of fundamental
(RPSC) Along the independence vs. dependence question
(RELA) Might be from different schools of thought
(RPSC) People might say dependence is necessary in any world economic system
(RFAC) Lenin said this
(RCON) This is the case
(RCON) Is the investment in maximizing grain production worth the result
(RELA) Are we going to have a declining amount of output per ruble invested?
(RELA) Have we reached that point now?
(RPSC) Producing things on which the western society is dependent
(RELA) Which will overide political consideration
(RFAC) Grain is not like other things where one country tends to have a monopoly
(RPSC) Argentina will always be willing to sell grain for the right price
(RCON) This question must be addressed
(RCON) It is probably going to involve a coalition of different interest groups
(RPSC) Others may say that investment is worthwhile
(RELA) That independ. will free the USSR from involvement with the west
(RQUA) This has assumed that the Russians are not
(RFAC) Have been since WW II
(RPSC) Selling grain to Europe
(RPSC) Selling grain to Cubans
(RPSC) Selling grain to Cambodia or Vietnamese
(RCON) Grain is useful for high priority foreign policy matters
(RCON) All these questions are going to involve fundamental ideological debates
(RQUA) Within the world system
(RCON) May never get past this point
(RELA) May never get a solid opinion from his ministery
(RELA) Or forge a coalition to be able to defeat other coalitions
(RCON) All of these will have to be dealt with
(RELA) Starting with the most fundamental issues
(RELA) Then garnering support
(RELA) Then read the political system so you can forecast

XI CSUP

(RARC) Fundamental questions concern the future prospects of socialist development and Capitalist or Communist expansion
(RSAS) Third world is in the throes of world revolution
(RELA) It is in the process of kicking out colonialists and capitalists
(RCON) If it is, then what should the agricultural policy be
(RCON) If the world is stabilized, then have to examine problem
(RQUA) Given the capitalist system is going to survive
(RCON) So what grain to produce will be fundamental
(RELA) Question of dependence
(RCON) Will involve broad ideological questions
(RPSC) Nature of revolution
(RPSC) Future of world revolution
(RPSC) Nature of interdependence
(RPSC) Is future of peaceful coexistence long range
(RELA) If not, who will withdraw
(RCON) What issues are being discussed today have to deal with these questions which are very fundamental
(ROUT) These would come up in the Politburo debates
(RREA) Because it involves trying to fit Soviet Society into the evolution of world history
(RCON) Thats going to be a long-range, fundamental problem
(RELA) May involve fundamental political changes
(RQUA) Not changes in ideology or political structure necessarily
(RELA) Changes in coalition which have operated since Stalin's death .
(RQUA) Depending on the strength of the hardliners and the Central Committee
(RCON) Could be question of different views of what USSR should be
(RELA) Liberal, consumer-oriented
(RELA) or defense-oriented
(RELA) Less tolerant of Elton John, bluejeans, etc.
(RSAS) Given the problem is now, it could be one of the major issues around which political alignment is cut
(RQUA) Given Brezhnev and Kosygin now
(RCON) But it could be something they agree on
(RPSC) USA might not be able to be trusted
(ROUT) Then they would have to retrench
(ROUT) Have to be more independent
(RCON) Really depends on things we know very little about right now
(RPSC) Such as movements within agencies
(RPSC) The demands of everyone from consumers to staff people
(RPSC) The nature of change of needs for agricultural goods
(RPSC) Could decide to reverse the desire to maximize production
(RREA) To re-enter world market
(RREA) Because Africa and Mid-east are in revolution
(ROUT) Should be able to help them change their agricultural system

(RARG) Minister can only do so much alone
(RFAC) Has staff and technical issues to deal with
(RQUA) He can deal with bureaucracy hopefully
(RCON) But sometimes things get out of his control
(RREA) Because they involve larger issues of society
(RQUA) Despite his best intentions he could fall on his face

Expert D

The problem of Soviet agriculture is a nagging and historical one which has plagued the Soviet Union virtually since its founding. By way of thinking through possible solutions, let me review what I remember of various Soviet attempts to deal with this problem. Lenin came to power with the promise of bread, peace and land and promptly tried to requisition grain from the peasants, that is to say, to force them to give their grain to the state. That didn't work, and it was forced on them mostly by the contingencies of World War I and the Civil War. That failed, and Lenin had the foresight to replace it with what he called the tax in kind, that is, peasants could give a certain amount of their grain to the state, and then after they had given that and they were taxed, they were able to grow anything they wanted after that, sell it and dispose of it as they wished. In fact, at one point in time a member of the government even said "enrich yourselves," he said to the peasants, "make a lot of money." Grain production improved, more grain was delivered to the cities, but it was not, of course, socialism. It was by no stretch of the imagination communism, it was socialism, but it wasn't even what you would call pure socialism. Essentially what he was creating was, or what he was accused of creating, was a class of little rich private farmers, something that a socialist revolutionary government would presumably not want.

Stalin changed all that at the end of the twenties and the beginning of the thirties by forced collectivization, actually forcing people to yield their land up to collectivization, actually forcing people to yield their land up to collective farms, or state farms, in which people worked for the state or for the collective farms much as a

factory worker, and received a salary. This was pure socialism, but it also created a tremendous havoc in the countryside, produced revolution, peasants slaughtered their livestock, burned their crops, and resisted as long as they could. It is estimated that in the course of this process perhaps 10 million people were killed or deported, or in some way deprived of either their livelihood or their life, for the greater good of socialism and moving the country forward. That has remained the practice in the Soviet Union through the war until the middle of the fifties. And, what has also remained has been a consistent lack of efficient production and delivery. So, (I'm making a note to myself that I should also comment on the fact that it is not only the system, but also natural aspects, whether infrastructure, questions, traditions, so I'm making the note to myself not to blame it all on government policy).

Well, in the fifties as the Soviet Union attempted to bring a better life to its people, especially under the leadership of Khruschev, and pursue what was known as the New Course in the Soviet Union, a shifting away from consistent investment in heavy industry and a heavy hand of the state on all aspects of the economy, including agriculture, Khruschev came up with a number of plans to try to solve this problem, and one of which is known as the Virgin Lands Plan. In fact it was a program to try to bring into production land that had not been used before. It failed. Agricultural production improved, but not dramatically over the course of Khruschev's time and Khruschev was, among other things when he fell, attacked for producing what were known as hairbrained schemes, among them the Virgin Lands Plan. There is probably no greater problem that has persisted in the Soviet Union, that has nagged the system and its governing body, than what to do about

agriculture.

Now, in addition to the problem of trying to reconcile a socialist policy with the need for production and, I hesitate to say man's instinct because, let's confine it to peasants, that the peasant's instinct seems to be, across countries in history, forelorned, for his own land and for some share in his own production. That conflicts with a collective notion of some sort of government control in production, at least, making sure that people get fed. If grain is produced in the countryside, and people live in the cities, some method has to be found to get that grain into the cities, and at a reasonable cost, in reasonable proportion, or otherwise, there will be chaos, or even revolution. In fact, to go back to the revolution, during the revolution and the Civil War, the cities of Russia emptied out as people desperate for grain left the cities in a desperate attempt to get grain. The peasants can be encouraged to grow, but will he sell, will he sell what he makes to the government? Or will he simply hoard the grain, knowing that the grain has a value itself beyond whatever he might be paid for it?

Let me leave government policy for a moment and talk about other things that affect agriculture. First, as I have indicated, or sort of hinted at, there is the peasant's own frame of mind. It is a traditional frame of mind. The peasant is typically a very religious person, very close to his land, his family, his village, and his church. He is very suspicious about outsiders. This is also clear throughout Russian history when various movements would arise, "Go to the people" was one of them, by the sort of Russian populists, known as the Urudniks, in the nineteenth century. Go to the people, and bring them

the New World, or the new revolutionary mode. Most of them never had the chance, because the peasants simply killed many of the people who came to them, certainly the tax collector, any government agent is always suspicious. So that is problem number one. The peasantry is not only suspicious of the government, but any new methods, any new introduction, of new ways of producing agriculture. He would always grow enough for himself and for his family, and if motivated properly, might grow enough to feed other people.

The question is how to motivate him properly and retain some of the Socialist principles upon which our government is based. But there are problems as well, which are less malleable, I think, and less the fault of mismanagement of the government.

One is the fact that agriculture is a particularly difficult business because of questicns of weather, of soil development, of soil erosion. The Soviet Union is, for example, 2-1/2 times the size of the United States, roughly one-seventh of the earth's surface, and yet in terms of arable land, it has roughly about the same as the United States and less than the country like Australia, for example. So there is a problem simply of the elements, how to deal with that, in an effective way.

Third, there is the problem of once the grain is grown, how to get it to the markets. The Soviet Union is a vast country with roughly three hundred thousand, I think I saw a figure, three hundred thousand miles of paved road, on a country 2-1/2 times the size of the United States. The United States, just by contrast, has roughly some three million miles of paved road. So there is a significant difference. When you have one railroad line going to Siberia and back, you recognize

the size of the problem. There is a similar disparity in terms of rail passage. The country covers thirteen time zones. Delivering, getting grain from the farm to the land, to the people who need it is a significant problem, even if there were not other problems of government mismanagement.

Finally, this sort of gets back to the question of Socialist principles, this is a command economy in which the government makes a plan and it is carried out by way of decisions that are determined by the government; how much is to be grown, how much is to be invested which is crucial in terms of agriculture, how much is to go into fertilizer, how much is to go into tractors, how much is to go into every aspect of the agricultural question. That produces an enormous bureaucracy, an enormous sluggishness, an inflexibility to the market and to the needs of the country.

So, if I were just to review the four sets of problems, there is the question of the principles of Socialism, there is a question of the elements, there is a question of the peasant's let's say, culture (and by that I do not mean Arts and Sciences, I mean his orientation to the world, his frame of mind) and finally, there is the question of infrastructure, that is, getting to market, railroad cars, the fuel, provisions, infrastructure. Let me go back to point one. That is, the principles of socialism, let's call it the principles of socialism management, meaning that there is a question of ideology, and a question of management, that is, of plans, solving them, a problem of bureaucratic management. (I am making a note to myself - the word investment, which I will come back to. I am making a note that says private enterprise, I am making a note that says security, and I am

making a note under investment that says agriculture and infrastructure and I am making a note to the right of those things with two words - ideology and elements, because I am thinking to myself that those will be the two things that we can do the least about.)

Let me begin with the peasant's frame of mind. The peasant is a suspicious person, this is, of course, a stereotype, but we will operate on the basis of it to begin with, and, like all stereotypes it contains a kernel of truth. If we can assume, let us say, that the peasant is suspicious of the government, suspicious of government actions, what needs to be done is to provide him with some sense of security. In our system, we allow peasants to have a certain amount of private land in addition to the collective land on which he works. In fact, if it were not for that amount of private land, and it is a small amount, that the peasant is allowed to have usually behind his house, or something like that, that he can cultivate, our system would be in much worse shape. We would not be able to provide even the level that we do, which is, incidently, better than it was 10 years ago, and much better than it was twenty years ago, but still, by modern standards poor. And, more importantly than that, volatile. 200 million tons of a wheat harvested one year, and then 180 million tons the next year. A vulnerable, volatile system.

I changed my mind, I will not start with the peasant's frame of mind. Let us start at the top with the question of policy. Since I am the Minister of Agriculture, what kinds of things can I begin to push for? By saying that, I mean to indicate that I can not make any of these decisions by fiat, by simply deciding on them myself. I can only lobby, and try to get the Government and the Politburo to go along. I

think that is likely to happen because I think that everybody recognizes the seriousness and the vulnerability of the problem.

Things that I would push for are one, greater investment in agriculture. There must be more of the state budget, which is, after all, decided by the Party, into agriculture, put into investment, into machines, tractors, fertilizer. If the peasantry will misappropriate that and use it for their private plots, well, we have to wink at that. It seems to me that we have to look the other way. But there has to be more of that so that agriculture becomes more modern. We have missiles, we have satellites, we have extraordinary advances in computers and other technologies. There is no reason that we can not have the same, just in terms of the nuts and bolts, of farming in our country. So, that would point one would be greater investment in agriculture.

Point two, point one-b, probably, would be greater investment in the things that would allow the supplies, once grown, to make it to the cities. Greater investment in infrastructure, paving the roads to the countryside. Certainly electrification where it does not exits, railroad cars, trucks, specifically for the purpose of agriculture. Getting things that are grown in the land to the cities. (I am making a note to myself that this means taking it from somewhere else and so I am writing down the word budget to remind myself to talk about the politics of the budget.)

The question is how to simply encourage people. Suppose we have all this investment, and railroad cars, and tractors, and fertilizer, we still cannot get people to use it, to pour it into the farms, especially the state and collective farms. How can we get them to use it in an efficient, effective way and encourage people to make efficient use and

productive use of resources rather than wrathful use of resources or no use of resources at all?

We have to, I think, allow for incentives. This is under what I have written down as private enterprise, but that is not really what I mean. What I mean is private incentives which allow greater proportions, let us say, of the crops grown on the collective farm to be retained, or to be sold. Maybe make collective farms self-governing enterprises or, that is not what I mean to say, I mean enterprises whose profit and loss is a function of their own success, and suggest to them that if they can grow more and they can sell more at a profit, then they can keep a certain amount and distribute it among themselves. To provide what might be called by someone else, certainly not me in the Ministry of Agriculture, capitalist incentives. Incentives to increase production. To go along with offering people medals of Hero Socialist Labor if they will produce more. We need to offer people real incentives that encourage that. At the same time, we must recognize that the peasants production on his own private plot is crucial to our element, if it does not get out of hand and people do not start becoming rich landowners, and speculators in currency, and completely destroying social strata. Then, I think that we should tolerate a greater degree of profit and initiative on part of the private plots. We should allow use of our state equipment on the private plots. And lower what taxes there are on the sale of things. To allow, what in America would be called truck farmers, to bring in goods to the cities more efficiently, more easily, even perhaps to encourage that. Along these lines, a somewhat more radical proposal, which might be a couple of more years down the road, would be to allow for the formation of genuine cooperatives. A cooperative is different than a collective farm in that

it presumes the voluntary association of the farmers, their voluntary input and some degree of self-governing of their entities, genuine determination by themselves of how much they are going to make and how much they are going to invest. I think that should begin to happen perhaps in an experimental area of the country, to see if it works. It is being done in China, it is being done in Yugoslavia, with some success. I think we ought to allow that to happen too, while being careful, of course, that this does not lead to a run on the collective farms and people leaving those in droves, but to see if it works, and if it increases production. If it does, then reconsider to see if we might want to do it on a broad scale. This is related to the third point which is the one about the peasant's orientation, the peasant's feeling of security, the farmer's feeling of security. One of the reasons, in Poland, for example, that the farms, although private, although owned by families, though also small and inefficient, have not produced as much as they might is the constant feeling that the government might, sooner or later, take away what the peasant has invested. So that the peasant, for example, who makes a lot of money by selling his grain, is loathe to reinvest it into the farm and into equipment, because he is afraid. Why should he raise livestock beyond what he needs, or what he can sell for a few dollars, or a few zlody? There is no point in that because the government might come along and take it away. That same sense of insecurity, I think, needs to be assuaged in our country probably by the measures that I indicated before, encouraging the use of private plots, making it easier. By making a series of reassuring policy decisions, which may involve making changes in the Ministry of Agriculture where people who are more inclined to reassure the private farmer, any of the peasants, that their production, their goals will be achieved, that they

can invest some of their money, that they will have a feeling that the government will not be there to take away the fruits of their labor. There is no place perhaps, that the government is more involved in the people's lives than here in the Soviet Union and if we have to ease up some on that, while being assured of course that norms of Socialist legality are adhered to, it might reassure the farmers. It will take years to do so, but I think the steps have to be taken so that the peasant's feeling of insecurity will be lessened.

Now, having said all of that, (I am making a note to myself that says natural resources which reminds me to talk at the end of what I have to say to end on a positive note about the Soviet's capacity to solve its problems.) I put on the side before the question of ideology and the question of the elements. There's very little, obviously, that can be done about the elements. I think some of the other things we talked about, such as improving infrastructure, roads, bridges, capacity, deal with that. If you have a mud road, it is very subject to the elements. A dirt road becomes mud. If you have a paved road, it is not so subject. Beyond that, there is precious little that can be done except, perhaps, putting money into weather forecasting. Improvements in technology, so that weather prediction and planting will be somewhat more predictable. I would assign that relatively low priority since there really are limits about what can be done. Finally, there is the question of where does this fit in terms of our ideology. Are we returning to, if this is a policy , are we turning to a new economic policy, a Knepp under Lenin? Are we moving away from socialism? Is this a retreat from socialist advances? And I would say no, it is not. I imagine to myself that I would have to argue this to other Comrades who would suggest that this is moving allowing greater use of private

funds, people to accumulate them, and to get involved in private plots is a movement away from socialism and towards capitalism of some sort. I would suggest that as carefully regulated as I am suggesting that it would be, as carefully controlled, no one is suggesting the dismantling of collective farms, no one is suggesting allowing people to have huge, to become latafundiaries, as we see in Latin America. Rather, that we improve the efficiency of the system by allowing a greater mix of those incentives that come from collective work and those incentives that come from individual return. And that socialism, as we ourselves say, the building of socialism is an evolving process. It takes many forms. We have to respect for concrete conditions and I think certainly the plans that I have suggested fit well within certainly the Leninist view of socialism. No one would suggest that we return to the age of Stalinist excesses. We all know the dangers and the tragedy brought from that.

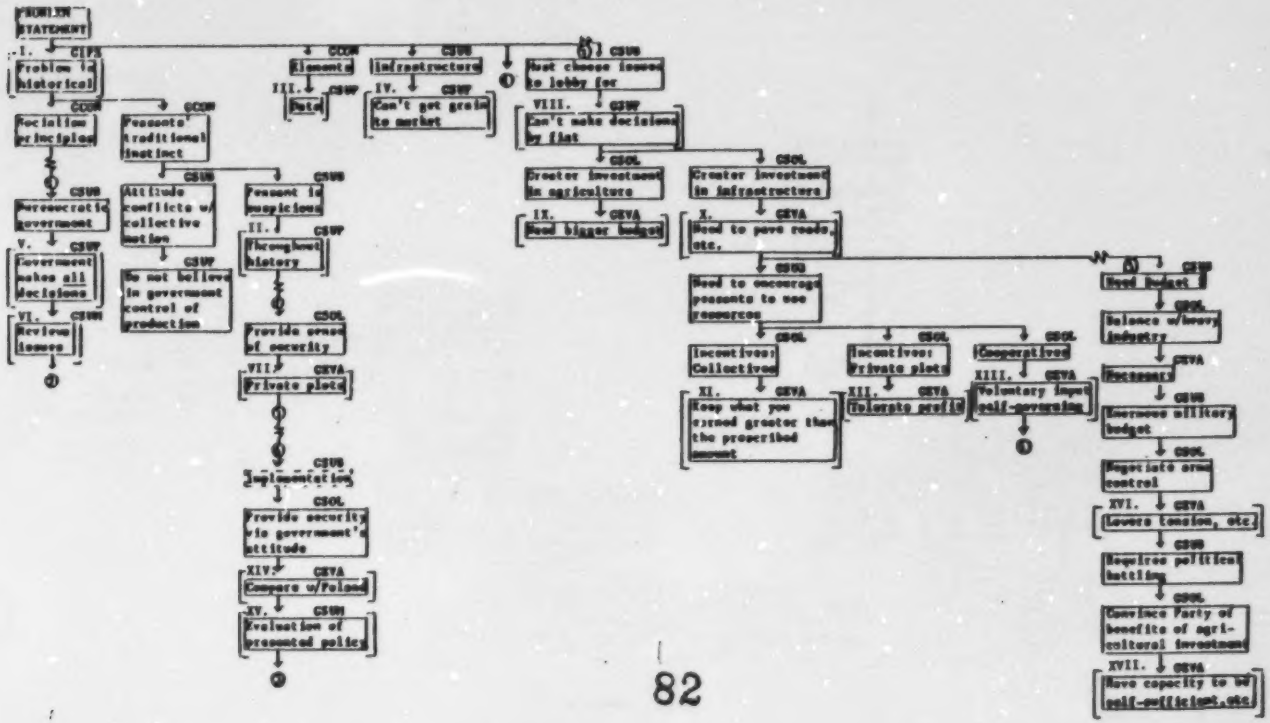
There is another aspect to this, of course, which is that there is only so much money in the state budget. Things that I am suggesting will cost money, will cost more money. There are other aspects of the budget that will pay for, essentially, this. This will inevitably lead to less investment in heavy industry. I think that is long in coming and necessary. That is, the imbalance between the investment in heavy industry and in agriculture. Secondly, of course, there is the enormous amount of our budget that is consumed by military preparedness weaponry, and armed forces, including, and I am being frank, such outlandish foreign ventures as that in Afghanistan. Now we have to get a handle on those things insofar as we are able. We have to negotiate arms control reduction with the United States and cease this constant pouring of funds into the military budget which not only increases tension, but sucks up and uses in a terribly inefficient way scare amounts of

budgetary resources. That will take some political battling. There will be comrades who will disagree with this. But I would suggest that, to sort of presage my argument and their opposition, that this investment will indeed make us a stronger country. Because we will have for the first time since the Revolution, a strong, healthy, secure agriculture.

We will also gain from infrastructure, which, after all, has military benefits as well - better roads, better bridges, better railroad transportation improves our military preparedness. We will have improved the feelings of loyalty on the part of our citizenry, towards our system. There are political scientists who would call this output affect and system affect. They will have a better feeling towards us. And we will not have to submit ourselves to the humiliating purchase of grain from the United States anymore. There is an old joke told in the men's rooms of the Kremlin about two Communists who sit down in some future year and say to each other "Is not it great? The final capitalist bastion has fallen. The United States has gone Communist and the world is now Communist!" And the other Comrade says "Yes, that's great, but where will we get our wheat?" This is a cruel joke on our system but it contains a kernel, pardon the pun, but kernel of truth. So, in all things considered, I think this system will not only improve our agriculture, but will improve our strength as a society and our self-sufficiency.

By way of ending, let me end on a positive note and say that I think that we have the capacity to solve these problems. The Soviet Union today is the closest of any country to being self-sufficient in terms of resources, the fuel it takes to run these tractors, the coal,

the iron ore, and of course, the land itself and the grain that it produces. We have the capacity to solve these problems in a way that perhaps many other states do not. A country that is vast and difficult to govern and to span is also a source of great power and of great self-sufficiency. And I think we should mobilize that if we have the will and the policies.


PROBLEM STATEMENT
I. CIPS
Problem is historical
CCOM
Socialism principles
CSUB
Bureaucratic government
V. CSUP
Government makes all decisions
VI. CSUM
Reviews issues
CCOM
Peasants' traditional instinct
CSUB
Attitude conflicts w/ collective notion
CSUP
Do not believe in government control of production
CSUB
Peasant is suspicious
II. CSUP
Throughout history
CSOL
Provide areas of security
VII. CSVA
Private plots
CSUB
Implementation
CSOL
Provide security via government's attitude
XIV. CSVA
Compare w/Poland
XV. CSUM
Evaluation of presented policy
CCOM
Elements
III. CSUP
Fatal
CSUB
Infrastructure
IV. CSUP
Can't get grain to market
CSUB
Must choose issues to lobby for
VIII. CSUP
Can't make decisions by fiat
CSOL
Greater investment in agriculture
IX. CSVA
Need bigger budget
CSOL
Greater investment in infrastructure
X. CSVA
Need to pave roads, etc.
CSUB
Need to encourage peasants to use resources
CSOL
Incentives: Collectives
XI. CSVA
Keep what you sowed greater than the prescribed amount
CSOL
Incentives: Private plots
XII. CSVA
Tolerate profit
CSOL
Cooperatives
XIII. CSVA
Voluntary input self-governing
CSUB
Need budget
CSOL
Balance w/heavy industry
CSVA
Factories
CSUB
Increase military budget
CSOL
Negotiate arms control
XVI. CSVA
Lowers tension, etc.
CSUB
Requires political battling
CSOL
Convince Party of benefits of agricultural investment
XVII. CSVA
Have capacity to be self-sufficient, etc.

(RARG) Agriculture has been a problem in USSR since founding
(RSPC) Lenin promised bread, peace, and land
(RFAC) Requisitioned grain from peasants
(RCON) Didn't work
(RREA) Forced on them because of WW I and Civil War
(RCON) Failed
(RFAC) Replaced with tax in kind
(RELA) Peasants gave certain amount of grain to state and then were taxed, could grow anything wished after that and do what they wanted
(RELA) Gov't said "enrich yourselves" and "make a lot of money"
(ROUT) Grain production improved
(ROUT) More grain delivered to the cities
(RCON) Wasn't socialism
(RQUA) Wasn't communism, but not pure socialism
(RREA) Created class of rich farmers
(RCON) Socialist Revolution government didn't want
(RPSC) Stalin forced collectivization
(RELA) Forced people to yield their land to state
(RELA) People worked for state and paid a salary
(RCON) Pure socialism
(ROUT) Created havoc
(RELA) Produced revolution
(RELA) Peasants slaughtered livestock, burned crops, and resisted
(RFAC) 10 Million people killed or deported
(RFAC) Has remained the practice of USSR to middle 50's
(RCON) Been consistent lack of product and delivery
(RPSC) Kruschev pursued the New Course
(RELA) To bring better life to USSR
(RELA) Shifted away from consistent investment in heavy industry
(RSPC) Virgin Lands Plan
(RELA) Tried to increase amount of arable land
(RCON) Failed
(RQUA) Production improved, not dramatically
(ROUT) Kruschev attacked for hairbrained schemes
(RCON) No greater problem that has persisted in USSR than agriculture

II. GSUP

(RARG) Peasant has traditional frame of mind
(RELA) Religious person, close to land, family, village, and church
(RELA) Suspicious of outsiders
(RFAC) Demonstrated throughout history
(RPSC) Go to the people movement
(RELA) Peasants killed many who came to them
(RELA) Peasant suspicious of new methods
(RELA) Will grow enough for self, but need to motivate to grow more than that

III. GSUP

(RARG) Agriculture difficult because of weather, soil development, and soil erosion
(RCOM) USSR 2 1/2 times the size of US
(RFAC) 1/7 of earth's surface
(RCOM) In terms of arable land, same as US and less than Australia

IV. GSUP

(RARG) Problem of how to get grain to market
(RFAC) Soviet Union is vast with 300,000 miles of paved road
(RCOM) 2 1/2 times US, but US has 3 million miles paved road
(RCON) Significant difference
(RFAC) One railroad line going to Siberia
(RCON) Rail passage difficult
(RFAC) Country covers 13 time zones
(RCON) Delivering, and moving grain is problem
(RCON) Even if gov't mismanagement not problem

V. GSUP

(RARG) Command economy where government makes plans and carries out government decisions
(RPSC) Goverment decides how much is grown
(RPSC) Government decides what is invested in agriculture
(ROUT) Produces enormous bureaucracy
(RELA) Enormous sluggishness
(RELA) Enormous inflexibility

VI. GSUM

(RARG) 4 sets of problems exist
(RRSC) Principles of socialism
(RELA) Question of ideology
(RPSC) Elements
(RPSC) Peasants' frame of mind
(RPSC) Infrastructure
(RPSC) Getting to market
(RPSC) Railroad cars
(RPSC) Fuel
(RPSC) Provisions
(RPSC) Bureaucratic management

VII. GEVA

(RARG) Need to provide peasant with sense of security
(RSAS) We allow peasants to have small private land, if were not for that system would be in worse shape
(RELA) Would not be able to provide level that we do
(RELA) Level better than 10 and 20 years ago, but still poor
(RFAC) System is volatile
(RPSC) Produce 200 million tons of wheat one year and 180 million the next

VIII. GSUP

(RARG) The minister can only lobby, can't make decisions by fiat
(RELA) Can only try to get Gov't and Politburo to go along
(RCON) I think it's likely to happen cause all realize seriousness of probelm

IX. GEVA

(RARG) Need bigger budget
(RELA) Put money in agriculture, machines, tractors, fertilizer
(RQUA) Peasant misappropriate $ but we have to ignore
(RREA) Agriculture must be more modern
(RFAC) Missiles, satellites, computers advanced
(RCON) No reason agriculture can't be too

X. GEVA

(RARG) Invest in things that allow supplies to get to city
(RELA) Need greater investment in infrastructure
(RPSC) Paving roads
(RPSC) Electrification
(RPSC) Railroad cars
(RPSC) Trucks

XI. GEVA

(RARG) Allows for incentives on collectives
(RPSC) Allow proportion of crop grown to be retained
(RPSC) Make collectives self governing enterprises
(RELA) Profit/loss is a function of their own success
(RELA) If they grow more, then can sell more at a profit
(RELA) Can keep certain amount for selves
(RSAS) Might be construed as capitalist incentives
(RCON) Has to go along with medals of Hero Socialist Labor if they produce more

XII. GEVA

(RARG) Peasant production on private plot crucial
(RQUA) Can't get out of hand
(RELA) People becoming rich landowners and speculators in currency
(ROUT) Destroy social strata
(RSAS) Have to tolerate greater degree of profit and initiative on private plot
(RSAS) Allow use of state equipment
(RSAS) Lower taxes
(RCOM) Allow truck farmers to bring goods into city like in US
(RREA) More efficient

XIII. GEVA

(RARG) Allow formation of genuine cooperatives
(RFAC) Cooperative different from collective
(RREA) Assumes voluntary association
(RREA) Assumes some degree of self governing
(RELA) Determination of how much they are going to make and invest
(RSAS) Experiment with it to see if it works
(RCOM) Works in China and Yugoslavia
(RQUA) Have to be careful there is no run on collective farms
(RCON) If it works, then might wantto do it on broader scale

XIV. GEVA

(RARG) Lack of security is reason that peasants do not produce as much as they might

(RREA) Peasants have constant feeling that government might take away what the peasants invest
(RPSC) Poland for example
(RELA) If peasants make money, they loathe to reinvest because afraid that government will take away farm
(RELA) Why raise livestock beyond needs if gov't will take away

(RCOM) This lack of security needs to be assuaged
(RELA) Make changes in ministry where you get people who are more inclined to reassure farmer that goals will be achieved
(RELA) That peasants can invest
(RELA) That gov't will not take away fruits of their labor
(RQUA) Must be assured that norms of Socialist legality will be adhered to
(ROUT) Might reassure farmers
(RQUA) But it will take years
(RCON) These steps should be taken though to lessen insecurity

XV. GSUM

(RARG) Have to consider ideology and the question of the elements

(RFAC) Little can be done about the elements

(RSAS) Work on improving the infrastructure
(RELA) ROads, bridges, capacity
(RFAC) If there are mud roads, then it is subject to becoming mud
(RFAC) Paved roads are not subject to mud
(RCON) Beyond that, there is little to be done
(RQUA) Except maybe putting money into weather prediction
(ROUT) So planting will be more predictable
(RCON) Would give this low priority
(RREA) Because there are limits to what can be done

(RSAS) Question of where does this fit in terms of idology
(RELA) Are we turning to a new economic policy
(RELA) Are we moving away from Socialism
(RELA) Are we retreating from socialist advances
(RSAS) I would say not and argue with my comrades that this is not a move away from socialism
(RSAS) Policy suggested would be carefully regulated
(RELA) No dismantling of collectives or allowing latafundiaries to exist
(RCON) My solucion will improve efficiency of system
(RELA) will allow mix of incentives
(RCON) Building of Socialism is an evolving process which could take many forms
(RREA) Plans fit into Leninist view
(RREA) Would never suggest Stalin excesses
(RREA) Resulted in danger and tragedy

XVI. GEVA

(RARG) Cease pouring funds into the military budget

(RREA) Increases tensions

(RREA) Uses in a terribly inefficient way scarce amount of budgetary resources

XVII. GEVA

(RARG) Convince opposition that investment will make a stronger country

(RREA) Because we will have a strong, healthy agriculture system

(RREA) Will gain from infrastructure development
(RREA) Has military benefits also
(RELA) Better roads, bridges, railroad transportation improves military preparedness

(RREA) Will improve feeling of loyalty towards our system
(RELA) Political scientists would call this system affect and output affect

(RREA) Will not have to humiliate ourselves by buying grain from US

(RCON) This system will improve agriculture and also improve strength of the society

(RCON) USSR has the capacity to solve these problems
(RSAS) Are the closest of any country to being self sufficient in terms of resources
(RPSC) Fuel to run tractors, coal, iron ore, and land
(RCON) A country that is vast and difficult to govern is a source of great power and self-sufficiency

Expert E

The first problem is that the Minister of Agriculture cannot have full responsibility for Soviet agricultural problems in the USSR. Although he is head of the Council of Ministers, he is subject to the decisions, on policy matters, made by the Politburo. He has very strict limitations in terms of his own political power. He cannot simply go off and start solving the problem.

I think that probably what he would do is the first step would be to consult with the specialists in the Party Secretariat responsible for agriculture and his own specialists within the Ministry of Agriculture to try and create a sort of study group to deal with the problem of Soviet agriculture, and hopefully he could come up with a number of alternative ways of dealing with the question of low productivity.

Then there is another alternative which has to be considered. And that is whether or or not the problem of Soviet agriculture is going to be dealt with simply within a national context or whether certain decisions could be made which would increase foreign trade and which certain types of equipment, or fertilizer, or goods themselves would be brought into the USSR. So I think this would really not be his responsibility. He would not be able to decide whether or not the USSR would go abroad for certain kinds of resources in order to deal with this productivity problem. But that would be one of the things which would be impinging on the decision. Let us assume, though, in order to make this a simpler policy problem, that he is not thinking about foreign imports. That he is not thinking about foreign grain or he is not thinking about foreign fertilizers or anything of that sort. Then the problem is that he has got to determine whether the information that

he is getting on Soviet output is accurate.

The Ministry of Agriculture happens to be the most conservative of the policy-making units in Soviet agriculture. And it has traditionally blocked certain initiatives by Party leaders, in particular, people like Khrushchev, by failing to provide adequate information and by simply failing to implement the decisions made by the very top political leadership. So, one has some problem with the reliability of the information one's ministry is collecting in the first place. So I think in order, if this is a problem, and it might be a problem, if he wanted to check on this, he would probably ask the people in the Party Secretariat, through their network of Party officials, to survey the question of agricultural productivity. He would ask his own ministry to do it, and then see if there were any discrepancies, and that sort of information, before one would even go to the next step of beginning to make policy.

Now, traditionally Soviet agriculture has suffered from a number of terrible problems. The first is climatic. The growing season is not like the growing season in the United States. The land is not as fertile, except in particular parts of the country. And so they have had difficulty, in many instances simply produced by fate, God, or if you will Divine Intervention, whatever your preference is, over which they have no control.

The second problem has been lousy productivity by the collective farmer himself. This is caused by the fact that the collective farmers have, for the most part, not really accepted, in an enthusiastic way, the collective farm system and have always tended to spend more time on their own private plots which is, in fact, the most productive sector in

Soviet agriculture, rather than working in the collective farm fields. So this is one of the problems he has got to address.

Another problem he has got to address is the relative productivity of the collective farm system as opposed to the state farm system. The state farm system is essentially based on immense farms, sort of like Green Giant farms, thousands and thousands of acres just growing peas or string beans. And one's got to determine, I think, the relative productivity of these two sectors and that in itself is not an easy task because this raises the whole question of the adequacy of the farm machinery which is being used in the USSR.

This is another problem which has plagued the system for years and years, that is, that for years there was only a limited number of types of agricultural equipment. Under Stalin, for example, they had maybe two standard types of tractors in the entire country and maybe two or three harvesters. And you had to use these damn things whether you were operating in a barren area or a wooded area or whatever. Well, under Kruschev and his successors this changed, but the biggest problem has been innovating new equipment which meets the particular soil and climate needs of the different regions of the country. And the system has been very slow to produce these new sorts of pieces of equipment because this demands inter-ministerial cooperation which is very, very difficult to develop in the USSR.

So, to review very briefly, you have got to review the collective farm system. You have got to look at the state farm system in terms of its relative productivity. You have got to look at the adequacy of the sort of machine-base that you are providing.

Now to add to that, one of the terrible problems in Soviet agriculture has been the infrastructure of roads and storage capacity. The roads are primeval in many, many areas, and the trucks that ride on these roads are battered to pieces very, very quickly as a result. So the Soviets have always suffered from transport problems in terms of carrying the grain to centers of collection. To add to the difficulties, until relatively recently, they have not really developed an adequate storage system, so that the grain will often be brought in by the trucks over the lousy roads, to be left in the fields where it rots because they do not have an adequate storage system. So these are all of the factors that he has got to consider in making some sort of decision about how to raise productivity.

Some of the problems are fundamentally ideological, that is, in recent years the regime has decided to stop trying to eliminate or limit the private plot and to bolster the private plot. This means that, if one is going to do this seriously, allowing the development of a private sector in agriculture within the midst of a socialist state, this raises certain ideologic difficulties for the regime. It also produces new problems in terms of the production of adequate equipment. For example, if families are going to be allowed to devote more time to their private plots, then they need small-scale types of equipment, such as rotor tillers and things of this sort in order to do an efficient job. This, of course, raises the whole problem of innovating new equipment for the private plot as opposed to the larger fields. And the question is who's going to produce these things. Of course, this produces problems in the USSR. So this is the range of problems that he is faced with.

Well there is another general problem and that is the relative balance of grain and meat products in the country and what you consider to be a desirable diet for the Soviet citizen. In recent years the demands for adequate meat have apparently been increasing. Now the problem of meat is that you need lots of pigs and cows. In order to feed the pigs and cows, you need lots of grain and silage. And so you have got to consider in your planning for agricultural goods what percentage of it is going to go into silage, in order to feed the cows and pigs, as opposed to what percentage of it is going to go into the grain market to make bread and rolls and things of that sort. And that is not easily done because that is influenced, the whole problem is often influenced by the weather, and all these other problems which you have outlined like inadequate transportation, inadequate storage facilities and the like.

In bad years, the USSR has always been plagued by the fact that they have had to slaughter the pigs and cows who they have fed on the grain because there is not enough grain to feed the pigs and cows who they have fed on the grain because there is not enough grain to feed the pigs and cows as well as the population. They have got to feed the population first, so all the pigs and cows that they have built up over eight or nine years are killed. So there is terrific unevenness in the development of meat production. When you move in this direction it sounds like the question becomes almost insolvable.

I think that there is an additional problem which caps all of these. And this is how are we going to pay for the production of this wide range of grains and meats and the like which is necessary for a society which is demanding an increasingly rich diet? And this raises

the problem of price. What price are you going to pay to the collective farmers or the state farmers in order to extract certain levels of production? Which is not an easily determined sort of question. And the other problem is what price are you going to demand that consumers pay in order to pay the state back for this massive investment? And here there is immense confusion because nobody really has a clear sense of what price level is necessary on both those scores. That is, what price level is necessary to produce given amounts of agricultural goods and meat products on the one hand, and what price level is therefore necessary, or to put it more accurately, what price level will the population accept to pay for these things? So this is another set of problems that have got to be dealt with.

So you are not only talking about resource-based problems, agricultural equipment problems, distribution of resources between grains and meat, you are also talking about a fundamental problem of where the devil do you get these resources. Now that is not easily decided. In fact, the Minister of Agriculture cannot decide that at all by himself and even allied with the Party officials responsible for agriculture, can he decide that because you have got other sectors of the economy screaming for scarce resources. You have got the military, which is extremely powerful and which is always able to extract more and more from the economic system. You have got the Industrial ministries, you have got regional Party officials with other demands on the system. And so the Minister of Agriculture has got to decide that either he is going to operate inside that framework or he is going to bash that framework apart, in one way, in order to extract resources from the system.

Given the nature of the system as a whole, he will tend not to bash it apart because he wants to continue to be the Minister of Agriculture if for no other reason than he likes to prerequisites of running around town in his Muscovitch and all the rest of it. But the problem is that all he can do really is to sort of outline his program of what he thinks is necessary and essentially send it off to the Politburo. And then the Politburo has the incredible job of trying to make up its mind on the distribution of resources between sectors. And the Politburo, of course, tends to presume that the subordinates always overstate their needs in order to extract larger numbers of resources from the center. And so they tend to presume that the Minister of Agriculture's presentation of the problem is probably enlarged so that he can get something out of them. So they tend to be skeptical of the information that they get from the Ministry of Agriculture and probably call him in and grill him pretty extensively in making the final decision about what kinds of investments will be made in agriculture.

Now this does not solve the problem. We are just talking about the beginnings of solving the problem. At the Politburo level, to go back to our other question, at the Politburo level, this is where the question of external resources would probably come into play. At the Politburo level, it might be decided that the system cannot possibly, say, take funds away from a new missile system, or a new set of steel plants, and the only way it can solve the agricultural problem is by imports. Now there are different sorts of imports that can be decided on. You can import machinery, you can import fertilizer, you can import the goods themselves. And here I would imagine that the Politburo would create some sort of study group to determine whether to move in terms of some sort of import of agricultural goods per se, fertilizer, equipment,

or I think that is essentially the range of it. Now this, of course, depends on, to a very large extent, the general foreign policy relationship between the Soviet Union on the one hand, and the external world on the other. It can get some of these agricultural goods from within its own bloc. But not fairly likely. It can get sugar, for example, from Cuba. So that it does not have to worry terribly much in terms of sugar in terms of its agricultural productivity, except that it costs a lot of money to buy that sugar and that is a drain on resources, but there are political reasons to keep that relationship alive, so that you guarantee sugar and keep a good political relationship at the same time. But the big question is, that given the relative lead of Western technology in agriculture, there would be some people in the study group that would say, well, look, we have seen these fantastic pieces of equipment in the United States and Canada, why don't we simply purchase some of them? Because our own ministers keep fighting forever about the development of new equipment and we see this wonderful piece of equipment, let us say, out in Saskatchewan, why don't we import that? But that costs currency, and that depends, of course, on the trade balance between the USSR and Canada and so that is a problem.

I think that these are the sorts of considerations which have lead the Soviet Union to a very short-term way of solving their agricultural shortfalls, like simply buying large amounts of grain from the United States, from Argentina, from Canada when years are very bad. They do not like this because it produces a certain sort of dependency about which they are very, very sensitive. But in years when the situation has really gotten very, very bad, they have been forced to purchase agricultural goods on the open market in the west in order to make up for shortfalls at home. But the price they pay, of course, depends very

much on the political relationship with the particular marketing state. Obviously, when you are talking about the grain deal of 1973, I guess it was, with the United States, Nixon had a very strong interest in improving Soviet - American relations, so he pressured the Department of Agriculture in this country to essentially sell off grain to the USSR at very low prices. But at times when the relationship is not as good, then the USSR has to pay more for its grain and does not like to do that because of this whole problem of resource allocation. Well, this just gives you a sense, I think, of the enlarged number of factors that you get in this decision process as you move into the whole problem of whether or not you are going to deal with shortfalls or lags of productivity by going abroad.

There is another way one could cope with it. And this would be to try and develop, what the Soviet side likes to talk about, is moral incentives. That is to focus on increased productivity, not necessarily by better use of technological inputs, but by sort of a reeducation of the farmer. By attempting to move directly to the farmer and by trying to convince the Soviet peasant more accurately that he and his family have a great stake in higher productivity on the collective farm and it is really that they should develop a larger collective consciousness. But there are difficulties with this, on the one hand, it is cheap, that is, it does not demand fairly many inputs. That is, you just send out agitators and propaganda. But the years of experience with collectivization, in particular, have made the peasants not terribly enthusiastic supporters of the regime so that, though at surface level this looks like a cheap way of dealing with the situation, that is, sending out more propaganda, that is, in actual fact, it might not pay off very well because of the value system that the peasants have

developed.

So that probably what one ends up with as a decision is you know, you try everything, you try a little bit of everything. You try to figure it out. It is really hard to tell whether this is done on the basis of real cost effectiveness or not, but I imagine you try to improve everything. That is, you try to improve the development of technology. You try to convince your ministries to cooperate a little bit better in developing new agricultural equipment. You try to persuade the people in agricultural research to work more closely with the ministries and not be building new crazy schemes for some sort of Utopian type. You might establish a particular group of Party officials in the system who would ride herd on a group of agricultural researchers and a group of ministries that would develop this new technique and get it in line very quickly. In fact, that is the kind of thing that they are trying to do all the time.

Another thing is that they have a passion for economy of scale. They consolidate and consolidate and consolidate. They take big units and push them together with other big units. And they hope that if you can put more equipment on these larger units that you will have more efficiency but this keeps running into the question that the equipment, in many instances, is not appropriate for that particular locale. Add one other problem and that is that a lot of control over the agricultural equipment has been decentralized, in the sense that it was sold off to the collective farms twenty, well more than twenty years ago now and it is very badly maintained. So that you have very good equipment that goes out and then you have inadequate mechanics on the spot who can keep this equipment in high repair. So one has to get

trained people, to go out in the country, to repair agricultural equipment.

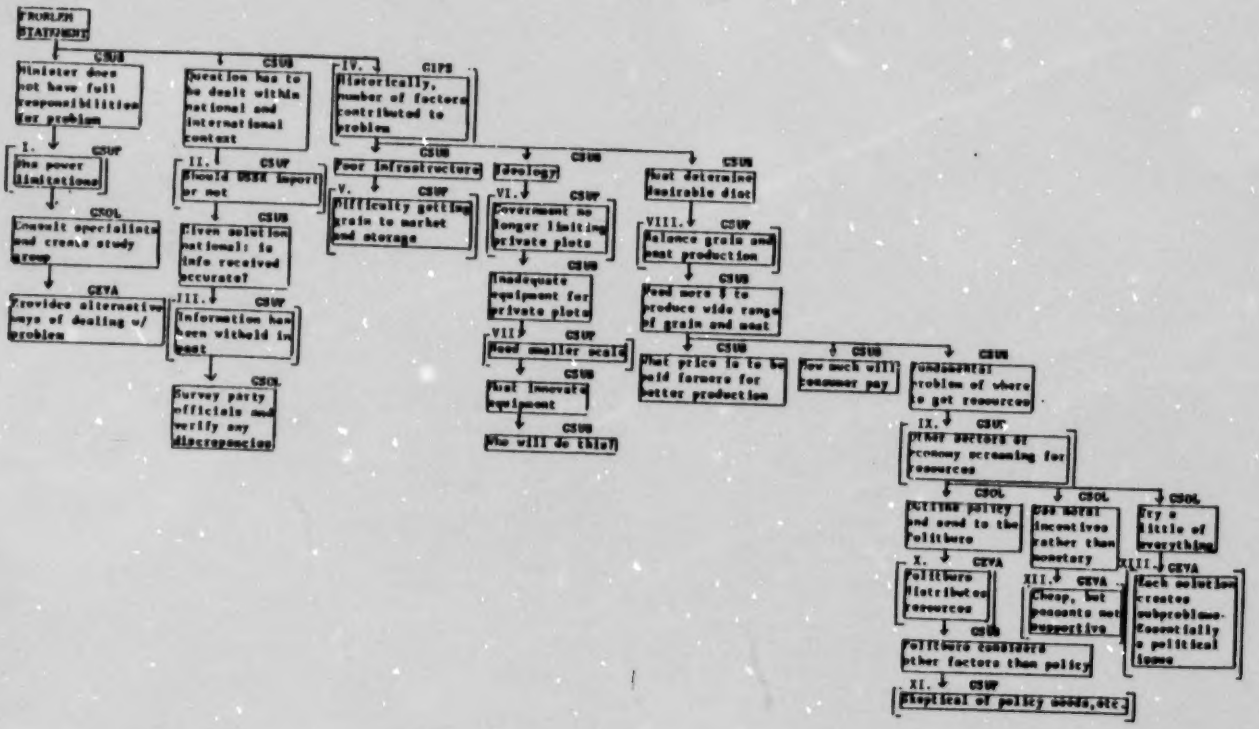
But in order to do that, you need a decent incentive system, to persuade them that that is something they ought to do and in order to do that, you have got to improve the number of movies, bars, plays, and decent housing in the agricultural areas, and of course, that is another set of investment decisions. And when you review all of these things, it is a wonder, in fact, that they do as well as they do with the scarce resources that they have.

Another solution that they have tried, and I do not know enough about its output to determine its utility, but they keep using it, so I guess they like it (although that is open to question as well), and that is to bring industry and agriculture closer together, by setting up canning plants that are right in the middle of the fields, rather than have them miles and miles away. I would imagine that that is the sort of thing that fits into their ideological preferences and would also seem to be more efficient way of improving agricultural production and I am sure that there would be groups within the agricultural hierarchy, both Party officials and government officials, who would argue for that, who would say that it is this nice combination of the big field with a plant right in the middle, with a canning plant right there, with a railroad right up against it, that is the way we have got to do it. But I am sure, on the other hand, there would be advocates of other ways of using scarce resources who would fight with these people and the outcome probably would be a little bit for everybody. That is, not a clear set of preferences in terms of we are going to improve agricultural productivity in this way, but we are going to improve it in a wide range

of ways, which essentially would be a political solution to an economic problem. Political in the sense that all the competent bureaucracies and interest groups would get some resources to make their effort to improve the situation. And then everybody would cross their fingers and hope that it works out.

One thing I forgot, when Brezhnev came into power, one of his pet ideas was land reclamation, that is, to drain a lot of marginal lands, a lot of swampy lands, and bring them into agricultural productivity. I am not sure what has happened to that, but that was one of the schemes which they thought was very important. It ran into incredible technological problems because they do not have adequate pipe factories to produce the sort of equipment which was necessary to drain the fields. And it also ran into incredible political problems because collective farms did not cooperate with local authorities and with the development of the program. And this does not now seem to have the emphasis that it had early in the Brezhnev career. I have gotten a little astray, I guess, from your original question about if you were Minister of Agriculture, how would I solve the problem. But, you know, being a political scientist, I am interested in the depth, and how big the problem is rather than the solution of it.

Report E


PROBLEM STATEMENT
CSUB
Minister does not have full responsibilities for problem
CSUB
Question has to be dealt within national and international context
IV.
CIPS
Historically, number of factors contributed to problem
I.
CSUP
The power limitations
II.
CSUP
Should USSR import or not
CSUB
Poor infrastructure
CSUB
Ideology
CSUB
Diet determine desirable diet
CSOL
Consult specialists and create study group
CSUB
Given solution national: is info received accurate?
V.
CSUP
Difficulty getting grain to market and storage
VI.
CSUP
Government no longer limiting private plots
VIII.
CSUP
Balance grain and meat production
CEVA
Provides alternative ways of dealing w/ problem
III.
CSUP
Information has been withheld in past
CSUB
Inadequate equipment for private plots
CSUB
Need more $ to produce wide range of grain and meat
CSOL
Survey party officials and verify any discrepancies
VII
CSUP
Need smaller scale
CSUB
What price is to be paid farmers for better production
CSUB
How much will consumer pay
CSUB
Fundamental problem of where to get resources
CSUB
What innovate equipment
IX.
CSUP
Other sectors of economy screaming for resources
CSUB
Who will do this?
CSOL
Setting policy and send to the politburo
CSOL
Use moral incentives rather than monetary
CSOL
Try a little of everything
X.
CEVA
Politburo distributes resources
XII.
CEVA
Cheap, but peasants not supportive
XIII.
CEVA
Each solution creates subproblems. Essentially a political issue
CSUB
Politburo considers other factors than policy
XI.
CSUP
Skeptical of policy needs, etc.

I. GSUP

(RARG) Minister of Agriculture does not have full responsibility for agriculture problems
  (RQUA) Even though head of Council of Ministers
    (RREA) Subject to Politburo decisions
    (ROUT) Strict limitations on his own power
    (ROUT) Cannot simply go off and solve problem

II. GSUP

(RARG) Must consider whether problem should be dealt within national or international context
  (RELA) Should foreign trade be considered
  (RELA) Should equipment, fertilizer and goods be imported
  (RREA) If considering foreign trade it is not his responsibility
    (RELA) He could not make these decisions
    (ROUT) This impinges on decisions (on how the problem can be interpreted, solved
  (RCON) Let's keep it simple (RCON) etc.)
    (RELA) No Foreign Imports
      (RPSC) No Foreign grain
      (RPSC) No Foreign fertilizers

III. GSUP

(RARG) Minister must determine if information he receives is accurate
  (RFAC) The Agriculture Ministry is the most conservative
  (RELA) Blocks Initiatives of Party Leaders
    (RPSC) Like Khruschev
    (RREA) Because it fails to provide accurate information
    (RREA) Because it fails to implement decisions
  (RCON) Reliability of information collected is a problem

IV. GIPS

(RARG) Traditionally, USSR has suffered from a number of problems
(RPSC) Climatic problems
(RCOM) Growing season not like US
(RCOM) Land is not as fertile
(RQUA) Except in particular parts of country
(RCON) So, have had difficulty produced by fate
(RPSC) Poor productivity on collectives
(RREA) Caused by farmer himself
(RREA) Have not accepted the collective system
(ROUT) Spend more time on their private plots
(RFAC) Most productive sector is Soviet Agriculture
(RSAS) Must address the relative productivity of the collectives as opposed to the state farms
(RFAC) State farms are essentially immense farms
(RCOA) Like Green Giant farms growing acres of beans or peas
(RCON) Have to determine relative productivity
(RCON) Not an easy task
(RREA) Raises question of adequacy of farm machinery
(RPSC) Farm machinery inadequate for years
(RREA) Limited number of types of agriculture equipment
(RELA) Under Stalin only had two types of tractors and three harvesters
(ROUT) Had to use these whether operating in barren or wooden area
(ROUT) Under Kruschev this changed
(RQUA) But the Biggest problem is innovating equipment to meet particular needs of different regins
(RCON) System has been slow to produce these changes
(RREA) Demands interministerial cooperation which is difficult to develop

V. GSUP

(RARG) Soviet Union has inadequate roads and storage capacity
(RELA) Roads primeval in areas
(ROUT) Trucks battered up quickly
(ROUT) Results in transportation problems in terms of getting grain to centers
(RELA) Inadequate storage
(RQUA) Until recently
(ROUT) If grain got there, rotten in filds
(RCON) So these are all of the factors that must be considered

VI. GSUP

(RARG) Some problems are fundamentally ideological
(RPSC) Recently regime not limiting private plots
(RELA) Bolstering them
(ROUT) This means allowing a private sector within a Socialist State
(RCON) This raises ideological difficulties for this state

VII. GSUP

(RARG) If private sector develops causes need for new equipment
(RELA) Need smaller equipment
(RPSC) Rotor tillers
(RREA) For a more efficient job
(RCON) Need innovated equipment for smaller fields

VIII. [illegible]

(RARG) Must consider desirable diet for citizenry
(RFAC) Demand for meat increasing recently
(ROUT) Need pigs and cows
(ROUT) Need grain and silage to feed them
(RCON) Must consider percentages for silage as opposed to grain
(RCON) This is not easy market
(RREA) Influenced by weather
(RREA) Influenced by transportation
(RREA) Influenced by inadequate storage
(ROUT) USSR has had to slaughter pigs and cows
(RREA) Not enough grain to feed them as well as population
(RQUA) Population must come first
(ROUT) So pigs and cows which were built up for 8 or 9 years killed
(ROUT) Uneveness in development of meat production
(RCON) When you move in this direction the whole problem becomes almost unsolvable

IX. GSUP

(RARG) Problem of where to get monetary resources exist
(RSAS) Not easily decided
(RREA) Minister cannot decide by himself
(RELA) Even allied with party official cannot be decided
(RREA) Other sectors are screaming for scarce resources
(RPSC) Military very powerful
(ROUT) Able to extract more from economy
(RPSC) Industrial ministries
(RPSC) Regional party officials
(ROUT) So minister has to decide whether or not to operate in this framework
(RSAS) Given the nature of the system he'll tend to work within it
(RREA) Because he wants to stay minister
(RREA) Likes the benefits of the job

X. GEVA

(RARG) Politburo presumes ministries overstate needs when distributing monetary resources
(RREA) In order to extract larger numbers of resources from the center
(RELA) So they get something out of them
(ROUT) Tend to be skeptical of information they get from Ministry of Agriculture
(ROUT) Call in minister and grill him extensively

XI. GSUP

(RARG) Politburo considers other factors than policy
(RELA) Where the question of external resource come into play
(RPSC) Might be decided can't take funds from new missle system
(RPSC) Maybe can't take away from new steel plants
(RSAS) May be decided the only way to solve agricultural problem is through importing
(RELA) Could import machinery
(RELA) Could import fertilizer
(RELA) Could import the goods themselves
(RSAS) Politburo could create study group to determine if they should import agricultural goods
(ROUT) Would depend on foreign policy relationship between USSR and external world
(RFAC) Could get some agricultural goods from within its own bloc
(RQUA) But not likely
(RPSC) Could get sugar from Cuba
(ROUT) Doesn't have to worry sugar production
(RQUA) Could cost a log of money
(ROUT) Drains resources
(ROUT) Guarantees sugar and keeps a good political relationship alive
(RFAC) Western countries have better technology
(ROUT) Some people will advocate buying equipment from US
(RREA) Own ministers keep fighting about development of new equipment
(RCON) So will suggest importing it
(RQUA) Cost money
(RQUA) Depend on trade balance
(RCON) So that's a problem
(RCON) Think these considerations have led to short-term solutions
(RPSC) Like buying grain from US, Argentina and Canada
(RCON) They don't like this
(RREA) Leads to dependency about which they are sensitive
(RQUA) In bad years they have had to do this
(RREA) To make up for shortfalls
(RFAC) Prices paid depend on political relationship
(RPSC) Grain deal of '73 Nixon wanted improved relationship
(ROUT) Pressured Agriculture Department to sell cheap
(RPSC) Other times relationship not good
(ROUT) USSR pays more
(RCON) Don't like this
(RREA) Problem of resource allocation
(RCON) Gives sense of size of problem

XII. GEVA

(RARG) Develop moral incentives
  (RELA) Focus on increased productivity
    (RQUA) As opposed to technological solution
  (RELA) Re-educate farmer
    (RELA) Convincing the peasant that he and his family have a stake in higher productivity on collective
      (RELA) That they should develop a larger collective consciousness
    (RSAS) Have difficulties with this
      (RQUA) On one hand cheap, but doesn't demand much input
      (RELA) Just send out agitators and propaganda
      (REAA) Peasants not enthusiastic
  (RCON) At surface looks like good solution, but may not pay off
    (RREA) Because of peasants' value system

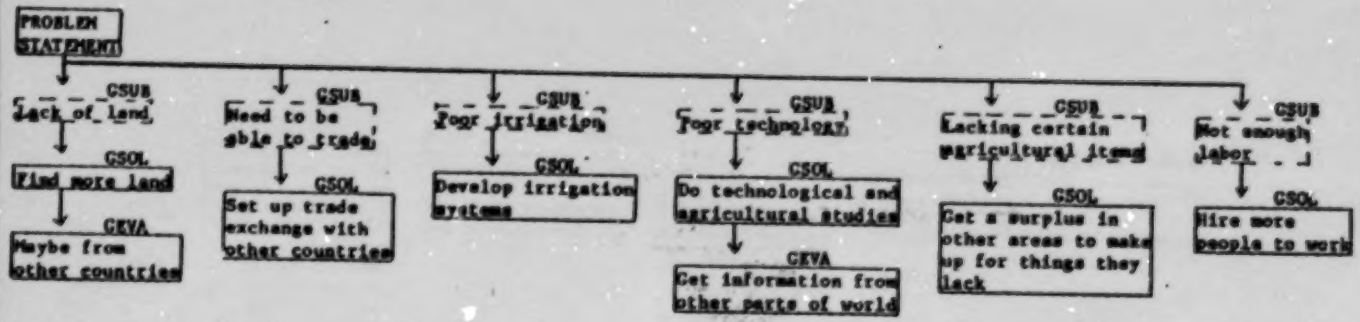
XIII. GEVA

(MARG) Try to improve everyting
(RPSC) Improve development of technology
(RPSC) Try to convince ministries to cooperate better in developing new equipment
(RPSC) Persuade people in research to work more closely with ministries
(RELA) Not build crazy schemes
(RRSC) Establish a group of Party officials to ride herd on the researchers
(RELA) And ministries to develop the technique quickly
(RCON) They try to do this all the time
(RFAC) USSR has passion for economy of scale
(ROUT) Consolidate everything
(RELA) Push big units together
(RREA) In hopes of more efficiency
(ROUT) But equipment often inappropriate
(RFAC) And control of equipment has been decentralized
(RELA) Sold off 20 years ago
(ROUT) Badly maintained
(RREA) Goes out good and inadequate repairmen to keep good
(ROUT) Will have to train people to repair
(ROUT) Will need decent incentives to persuade people to go there
(ROUT) Will have to improve movies both and housing
(RCON) With all of this miracle have done so well
(RPSC) Another possibility they try is bringing industry and agriculture together
(RCON) I don't know enough about its output to determine utility
(RFAC) They keep using it
(RREA) So they probably like it
(RQUA) Though that's open to question
(RPSC) Setting canning plants right in the middle of the fields
(RCON) This is the kind of thing that fits into their ideology
(RCON) Also seems like a way of improving agriculture efficiency
(RCON) There will be groups within agriculture hierarchy who will argue for this
(RELA) Party and Government Officials
(RELA) They will like this combination of field, plant and railroad
(RCON) But there will be opponents who will fight for other ways to use scarce resources
(ROUT) Outcome - a little bit for everybody
(RCON) There just is not a clear set of preferences in terms of what to include in an agriculture program
(ROUT) Will have to use wide range of ways
(RCON) And this is a political solution to an economic problem
(RELA) In the sense that all the interest groups get a little bit
(RCON) Everyone will have to cross his fingers and hope
(RPSC) Forgot one more possibility i.e., Brezhnev's land reclamation
(RELA) Draining marginal lands and swamps
(RCON) Don't know what happened to it
(RQUA) Though I know they thought it important
(RCON) Ran into technological problems
(RREA) Inadequate pipe factories to produce equipment to drain
(RCON) Run into political problems
(RREA) Collectives did not cooperate
(RCON) Does not seem to have as much emphasis now

Novice A

The obvious answer to me would be to find more land, from other countries maybe. Set up an allied system with other countries to get, a trade exchange. Maybe develop irrigation systems, do technological studies, agricultural studies. Acquire information from other areas of the world. That is all I can think of. (Experimenter: Let your mind wander about what you know about Russia) You want to know about how to develop more? (Experimenter: increase crop productivity, grow more wheat and like) Develop new areas in agriculture maybe get a surplus in other areas of agriculture. To make up for the things that they lack. Hire more people to do the work.

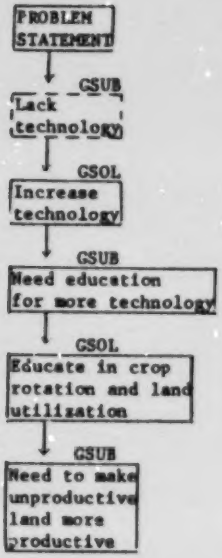
Novice A


PROBLEM STATEMENT
CSUB
lack of land
CSOL
Find more land
CEVA
Maybe from other countries
CSUB
Need to be able to trade
CSOL
Set up trade exchange with other countries
CSUB
Poor irrigation
CSOL
Develop irrigation systems
CSUB
Poor technology
CSOL
Do technological and agricultural studies
CEVA
Get information from other parts of world
CSUB
Lacking certain agricultural items
CSOL
Get a surplus in other areas to make up for things they lack
CSUB
Not enough labor
CSOL
Hire more people to work

Novice B

Well, you would need to introduce more technology which would obviously involve educating a certain group of people solely for the purpose of agricultural output. You would have to educate the farmers in crop rotation and utilizing as much land as possible. I guess they have a problem with making unproductive land productive too, which would obviously increase production.

Novice B


PROBLEM STATEMENT
GSUB
Lack technology
GSOL
Increase technology
GSUB
Need education for more technology
GSOL
Educate in crop rotation and land utilization
GSUB
Need to make unproductive land more productive

Novice C

It seems like crop production in the Soviet Union has been a problem for quite a while because they have been buying wheat from the United States, but what I know about the Soviet Union is really little. So, I do know that they have been bringing in some people from the United States. In fact, I know someone personally, who has, not in the Soviet Union, but has gone to Eastern Europe to teach farmers how to grow strawberries, for instance, and increase production and to grow better strains. So, I think that is one way to solve the problem. But, in fact, no. I think that is the best way to solve the problem, would be to bring in experts from other countries with the knowledge that they need.

I. (GIPS)

(RARG) Crop production has been problem for a while
(ROUT) Have been importing wheat from US
(RQUA) I know little about USSR
(ROUT) Have brought people in from US
(RFAC) I know someone personally who went to Eastern Europe
(RELA) Teaches how to grow strawberries
(RELA) How to increase production and grow better strains

Novice C

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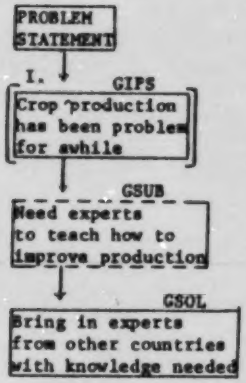
PROBLEM STATEMENT
I.
GIPS
Crop production has been problem for awhile
GSUB
Need experts to teach how to improve production
GSOL
Bring in experts from other countries with knowledge needed

Novice D

What needs to be done is to increase production and because we are a communist society and we believe in Marxist-Leninist ideology we would have to make it known to the workers on the collective farms, etc. that working hard to increase productivity benefits all. The government, of course, realizes that we have to take a big role in aiding you, and for that reason we are furthering our technology to the best we can. The thing I want to say here is, I do not know if I can criticize. I think what I am doing is I am making a speech to the people. We have realized that out policies in the past have been a bit strict in rewarding the people with material goods. Therefore we are going to relax that policy and reward you more generously. But we also realize that people have not been working as hard as they can. It is a two-way thing. Because we have not been rewarding you materially, you have felt that you do not have any incentive to work as hard. If we both work together in this respect, production will increase and the food supply will increase for all. We can sell more abroad and therefore increase our revenue to be shared equally, distributed equally, among our populace. So, in effect, we have to work together here.

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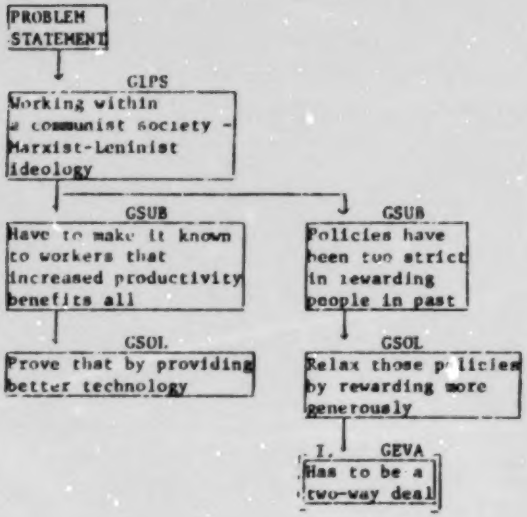

PROBLEM STATEMENT
GIPS
Working within a communist society - Marxist-Leninist ideology
GSUB
Have to make it known to workers that increased productivity benefits all
GSUB
Policies have been too strict in rewarding people in past
GSOL
Prove that by providing better technology
GSOL
Relax those policies by rewarding more generously
I. GEVA
Has to be a two-way deal

I. GEVA

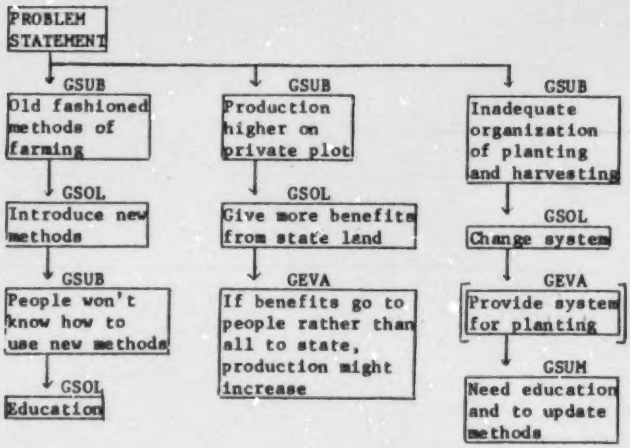
(RARG) Rewarding people more generously has to be combined with harder work
(RSAS) Workers have not been working as hard as they can
(RREA) No incentive to work hard
(ROUT) If work together, production will increase
(ROUT) Food supply will increase for all
(ROUT) Can sell more abroad
(ROUT) Increases revenue to be shared equally
(RCON) Have to work together to increase production

Novice E

Old-fashioned methods of farming. So maybe what needs to be done is to introduce newer methods of farming and obviously the people probably need educated on how to use these new methods, especially if the introduce new machinery. I remember reading somewhere that on the land that the people own themselves, that crop production is much higher than it was on the state plots. Perhaps if the people could be allocated more benefits from the state land, rather than giving it all to the state, crop production might increase. Maybe the organization of how the crops are planted and harvested is not adequate. Perhaps that should be changed. What kind of system they use to plant the crops, if people from a certain town have to go out to a state plot and plant at a certain time. Maybe if it has to be worked around their jobs and plus around their own little private ground, perhaps they are planting and harvesting at the wrong times. It seems that just education in general may be a problem. Like updating of methods. What about their machinery. I think they would need new machinery. When I think of the machinery they have, they probably have old rusting harvester machinery. And if they got it, they would probably import their new machinery, they would have to educate the people on how to use it, or there would probably be only a handful of people who could use it, and if something should break, I doubt there would be even very many people who would know how to repair, so maybe something on that line, maybe if their machinery is broken down. Maybe soil fertilization methods and maybe their horticulture is not very good. Maybe the people have been planting crops on this land year in and year out and they never fertilized land and it is just reallly arid and not fertile. (What about climate?) I am not sure about their climate. I know it is very

wintery and pretty dry, a short summer. Maybe they are not planting the right crops for the climate. Maybe they are trying to grow the wrong types of plants. Maybe they should study the climate more and what types of crops grow better in that type of climate. They are probably not growing pineapples. Maybe their irrigation is bad. If it is dry, maybe they have no irrigation system and the crops all just dry up and wither away, but maybe to have an efficient irrigation system, they would need better engineering. Maybe they do not have that. That is about it. (Can you think of anything else?) The government is probably very much involved in crop production anyway, but maybe if they would get more people involved at the lower level where it is happening rather than have like a bureaucratic overlook of the thing and maybe have a few foremen-type people supervise them, they would really study the problem of why crop production is lower. The people who are doing the planting and who are deciding what needs to be planted and who are tending the crops--maybe people do not tend the crops, if it is state land. Maybe they are tending their own crops on their own land. Maybe weeds are overcoming them. Maybe there is a way to get the people more incentive. I think that is probably important. If they do not have any incentive, they are not going to take care of the crops very well, if they have to give them all away and have old machinery and no irrigation and dry land and grouchy overseers. That's about all I can think of.

Novice E


PROBLEM STATEMENT
GSUB
Old fashioned methods of farming
GSOL
Introduce new methods
GSUB
People won't know how to use new methods
GSOL
Education
GSUB
Production higher on private plot
GSOL
Give more benefits from state land
GEVA
If benefits go to people rather than all to state, production might increase
GSUB
Inadequate organization of planting and harvesting
GSOL
Change system
GEVA
Provide system for planting
GSUM
Need education and to update methods

I. GJVA

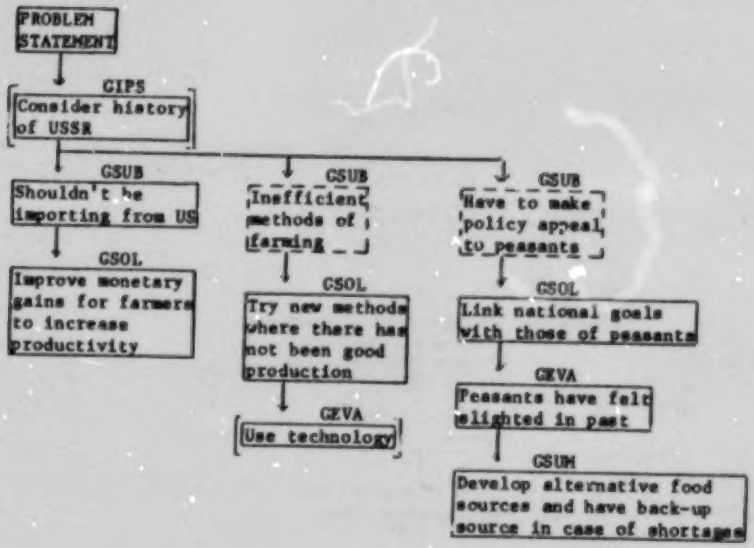
(RARG) Provide system for planting
(RELA) Certain people plant at certain state farm at certain times
(RELA) Maybe worked around their
(RELA) Worked around their little plot
(RREA) May be planting and harvesting at wrong time

Novice F

The first thing to realize is the history of the Soviet Union, how after the socialists, or the Bolsheviks, came into power they tried to make collective farms and how that did not work. But then again when they tried to give the parcels of land to the peasants, that didn't work because the peasants would only produce enough to make a profit and if they were not making a sufficient profit they would stop producing, just produce enough for themselves. The force methods did not work. Perhaps instead of trying to buy grain from the United States, if we tried to improve the monetary gains that farmers could get from producing more crops. Perhaps we would try new methods of farming in lands like Siberia which traditionally have not produced that much or in the different sea areas. Well that is technology. You know. You can grow certain things with technology to supplement other crops, just the way alternate energy sources have been to energy. Especially in the Soviet Union there are so many shortages at periodic times, that one of the big problems is that every once in a while you get storms or other types of natural calamities that interfere with the crops.

So if you want productivity increased I think the best thing to do would be to try to increase the mode of your theme(?) to the peasants. Perhaps try to link the national goals more closely with the peasants than we have been doing in the past. Cause in the past the peasants have been more slighted insuring the gains. Try to develop some alternate sources of food, plus try to get a reliable back-up source for food in case there are periodic famines and crop shortages as there have been in the past.

Novice F


PROBLEM STATEMENT
GIPS
Consider history of USSR
GSUB
Shouldn't be importing from US
GSOL
Improve monetary gains for farmers to increase productivity
GSUB
Inefficient methods of farming
GSOL
Try new methods where there has not been good production
GEVA
Use technology
GSUB
Have to make policy appeal to peasants
GSOL
Link national goals with those of peasants
GEVA
Peasants have felt slighted in past
GSUM
Develop alternative food sources and have back-up source in case of shortages

I.GIPS

(RARG) Have to consider history of Soviet Union
  (RPSC) Bolsheviks tried to make collective farms
    (ROUT) Didn't work
  (RPSC) Bolsheviks tried to give parcels of land to peasants
    (ROUT) Didn't work
      (RREA) Peasants would only produce enough to make profit
        (RELA) Not enough profit, stop producing except for selves
  (RCON) The force methods didn't work

II.GEVA

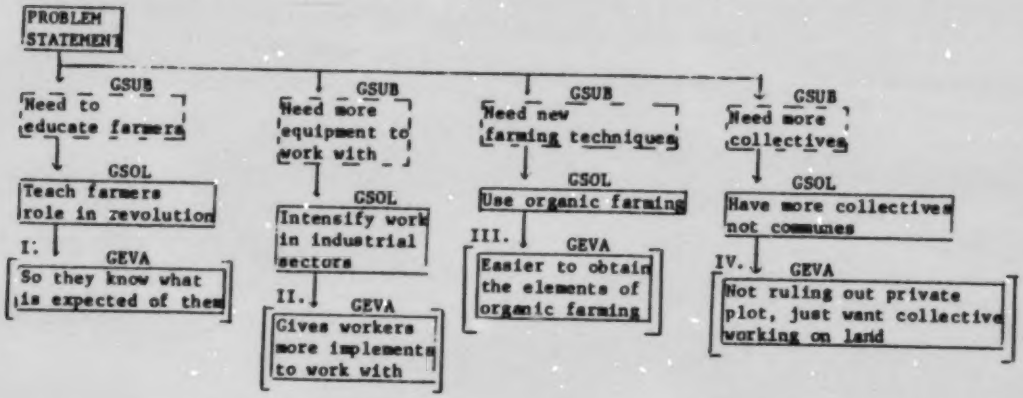
(RARG) Use technology to improve production
  (RELA) Can grow certain things with technology to supplement crops
    (RCOM) Like with alternative energy sources
    (RREA) Helps when there are shortages because of natural calamities

Postnovice B

It would be necessary to once again educate the farmers as to their role in the revolution and how after the revolution has been achieved what is expected of them, as far as producing enough for themselves and enough of a surplus so that they can feed the rest of the people who are working in the cities. To increase productivity agriculturally, there would also be a need for intensified work in the industrial segment for necessary farm implements to be distributed among the workers. Maybe not even needed to have work points for farm implements. If we could produce enough farm material, they could be handed out rather than having to have peasants spend their surplus on necessities of doing their trade, which would give them surplus money or whatever, grain, to buy something that were niceties. Maybe organic farming because it is so much easier to obtain the needed things, the necessary elements of organic farming, rather than chemical farming which depletes the soil, makes it every year harder to work the land. If organic methods were employed, it would be a lot easier to till the land every year. You are recycling in a sense, working with the ground, working with nature, rather than working against it and possibly poisoning the people and the land also not necessitating technological advances in the chemical industry which would not necessarily be having money spent on them at that time. Employ crop rotation, more collectives but not necessarily everybody living in a commune. There would not necessarily have to mean that you would not have your own plot of land also, but collective tilling of the land and collective harvesting of the land decided by the peasants, not the government, who should have what when. No more Machine Tractor Shops. Perhaps each collective could own their own, if industry could produce enough, own their own machinery the operating of

which would count as work points and the people who they were working for would not have to pay for that, so that would also be less requisitioning of surplus value that they are achieving. Better irrigation.

Post-novice B



I.GEVA

(RARG) Have to educate farmers as to their role in the revolution
(RELA) What is expected of them after the revolution
(RELA) Producing enough for themselves and surplus for people in the city

II.GEVA

(RARG) Intensify work in industrial sectors
(RREA) To make more implements for distribution to workers
(RREA) If enough produced, then peasants wouldn't have to spend $ on necessities
(ROUT) That would give them extra money to spend on niceties

III.GEVA

(RARG) Should do organic farming
(RREA) Easier to obtain necessary items
(RREA) Chemical farming depletes the soil
(RELA) Every year it is harder to work the land
(RCOM) Would be easier to till organic farmland than chemically grown
(RREA) Are recycling in a sense
(RELA) Working the ground with nature
(RELA) Rather than possibly poisoning it and people
(RREA) Doesn't necessitate the same technological advances
(ROUT) Won't need money spent in chemical industry

IV.GEVA

(RARG) Have more collectives
(RQUA) Not necessarily everyone living in communes
(RQUA) Doesn't mean no private plots
(RELA) Collective tilling of the land and harvesting
(RELA) Decisions made by peasants, not government
(RELA) Who should have what when
(RELA) No more machine tractor stops
(RELA) Each collective could own their own machinery
(RQUA) If they could produce enough
(RELA) People working on machinery would earn work points
(ROUT) People who they were working for wouldn't have to pay
(ROUT) Less requisitioning of surplus value

Postnovice C

It is hard for me to even think. I can hardly remember what I said last time. (You are not supposed to be thinking about what you said last time.) (What do you think could be a possible problem for low productivity?) The basic problem in the Soviet Union is not having enough land for growing crops for the people who cover the entire Soviet Union. Also the weather. Their crops probably fail due to the climate and geography more than anything else. (So, what would you do about this?) That is the problem. What would I do? They seem to be having more success with. I am not exactly sure how it runs right now. They still have the state farms and the collective farms I think. But they seem to be having more success with the state farms than anything else. But you can't say that either, because they also seem to have success when they just leave the peasants to themselves. The problem would probably be in technology and modernization and developing new strains of crops, or maybe just concentrating their crops on the hardiest ones, the ones that will grow there, instead of trying to grow so many different things. I would start to consider foreign trade. Exporting crops and bringing in things we do not have. Bringing also in the technology from western countries to start growing things we do not have, if it is possible. Making some of the more arid parts of the Soviet Union, I guess using irrigation, new technology, to start growing crops in those areas. I am not sure what, if anything, could be done to the north, but probably that is what I would try to concentrate on. The science of agriculture, rather than any kind of a social change.

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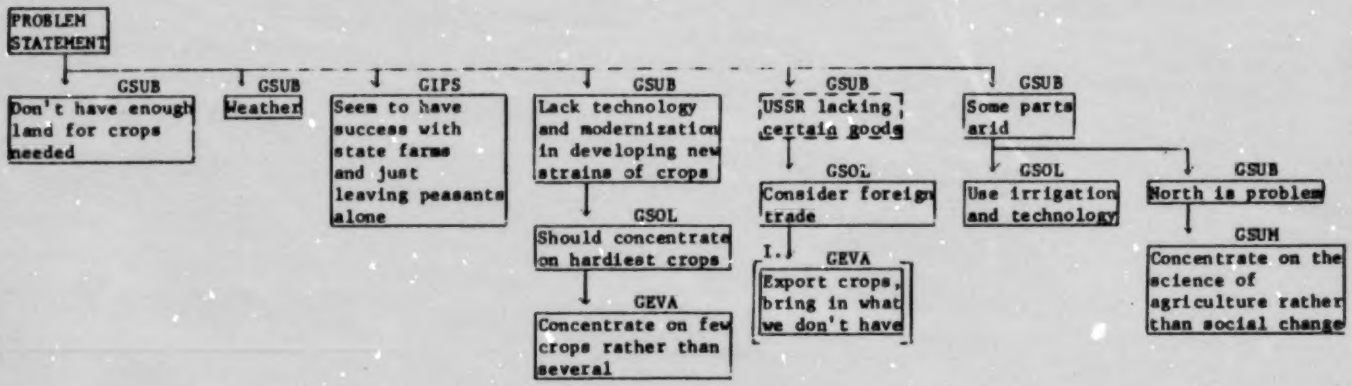
Post-novice C



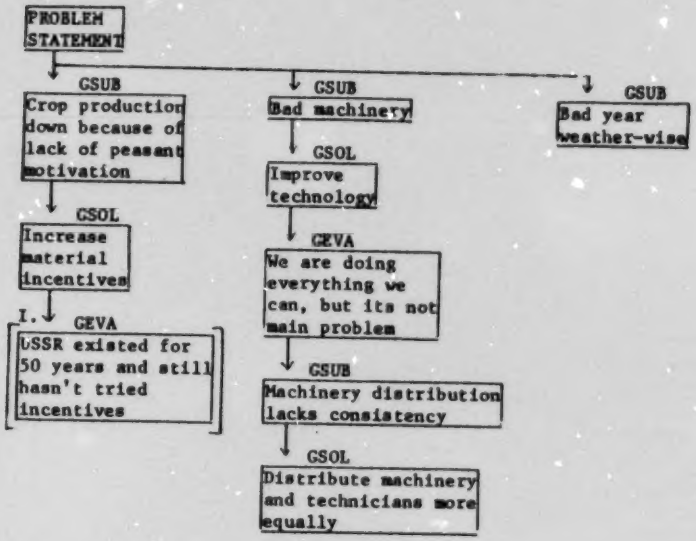
I. GFVA

(RARG) Consider foreign trade
(RPSC) Export crops
(RPSC) Import what we don't have
(RPSC) Import technology from west
(RREA) To start growing things we don't have

Postnovice D

Crop production is down, the peasants are not producing as much as they are able to, and that is due to that they do not want to. Therefore we have to increase material incentives. For 50 years the Soviet Union has existed and we have not really tried to -- everytime we have tried to increase incentives, it has always backfired on us. It has lasted two or three years and then we go back and use coercion and renationalize all the farms and stuff, so therefore, I will do everything in my power to convince the Chairman and the Politburo to make laws to increase material incentives. (What other kinds of problems would cause low productivity other than incentives?) Well, our machinery and technology, all over the world, machinery and technology can always be improved, and of course we are doing everything in our power to improve it, but that is not the main cause of our low production. One thing that is a problem is the consistency of where the good machinery goes to and we are going to try to distribute machinery and highly trained technicians more equally throughout the countryside. We had a bad year weatherwise and next year I hope we have a better one.

Post-novice D

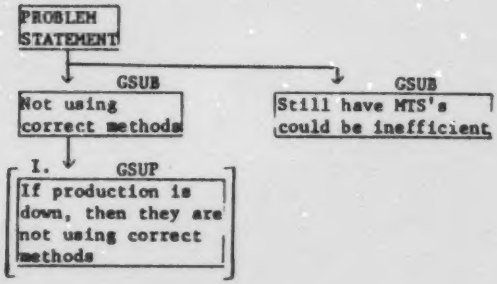


I. GEVA

(RARG) Have to increase incentives
(RFAC) USSR has existed for 50 years and never really tried it
(RELA) Everytime it was tried it backfired
(RFAC) Has lasted on 2 or 3 years
(ROUT) Then went back and used coercion
(ROUT) Then would renationalize farms
(RCON) Would convince Chairman and Politburo to make laws to increase incentives

Postnovice E

Okay, we will start with methods. Production is down. Maybe they are not using the correct methods. Maybe they need new farm machinery. Maybe the machinery they have needs worked on. Maybe it has to do with the arability of the land. Maybe they need to fertilize more, rotate crops. If the people who are farming, if it is a cooperative farm or something, and it is just farmers, just peasants putting their days in on the coop farm, they probably really do not know that much about modern farming methods, so perhaps the state should take some time and educate them in that fieid. If they have got MTS's (machine tractor stations) coming in to do plowing or so forth, there are other people still coming in to do the plowing if the coop can not afford their own equipment, and there could be some inefficiency in the process.


PROBLEM STATEMENT
GSUB
Not using correct methods
GSUB
Still have MTS's could be inefficient
I.
GSUP
If production is down, then they are not using correct methods

I. GSUP

(RARG) If production is down, then they may not be using correct methods
(RPSC) Maybe machinery used needs work
(RPSC) Maybe it has to do with arability of land
(RELA) May need to fertilize more
(RELA) May need to rotate crops
(RPSC) May be problem with the farmers
(RELA) May be just putting in their days at the co-op
(RELA) Probably don't know much about modern farming
(RCON) State should take time to educate them

Postnovice F

The more I think about the problem, I am beginning to believe that the only solution is to continue to import grain. I do not believe that the area in the Soviet Union that is available for farming is large enough to supply the country's needs, especially with the weather conditions the way they are. Every method that has been tried only works periodically. There is continued periodic famines or crop failures. So, I think that the only way that this problem can be alleviated or eliminated is to set up a continuing supplier of food stuffs for the people.

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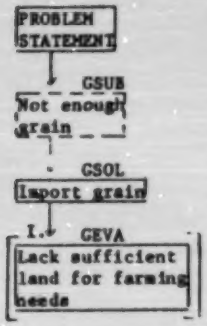

PROBLEM STATEMENT
GSUB
Not enough grain
GSOL
Import grain
I.
GEVA
Lack sufficient land for farming needs

I.GEVA

(RARG) Should continue to import grain
(RREA) The area in USSR available for farming is not sufficient to supply country's needs
(RELA) Especially with weather conditions
(RREA) Every method used has worked only periodically
(RELA) Periodic crop failure or famine
(RCON) Set up a continuing supply of foodstuffs

Graduate Student A

Let us see now. How to increase productivity. Well, it is going to be real tough right now because there is going to be a lot of opposition. The problem I have is that if I provide incentives to increase productivity, what is going to happen is the Socialist system going to be under consideration. The problem is that the measures that I propose might be rejected by other guys in the Politburo. They might be rejected by, especially guys like Kerirenka and those people who are...

Let me think of the options that could be done to increase productivity in the Soviet Union. You could always increase private property, private plots, that will improve, this will be a kind of capitalist solution. Let us see, how am I going to do this? Cause we have got to stop importing grain from the United States. They could clamp an embargo against us at any time. Let me think, first of all, the link system, increase the size of private plots, what you could also do is increase prices but that will give people the impression that there is inflation in the Soviet Union. It will most likely decrease the lines at the grocery stores, but it is going to increase inflation, and we do not want it to appear to the West that there is an inflation problem in the Soviet Union.

Let us see, then you could also, right now, you have got to provide incentives somehow for these farmers. If they do not have any incentives, then there is also the whole business of the transportation system in the Soviet Union that is inadequate. A lot of grain gets lost that way. Fertilizers, let's see, how does Hungary do it? The best way to examine the solution is to see how Hungary is trying to solve its

agriculture problem. What they have, what a lot of people have in Hungary is what you call a rent a coop system. Where urban dwellers can rent a certain private plot in the countryside and make their crops that way. Or what we could do is increase the prices that the collective farmers have to sell their produce to, so that they will have more incentives. Provide for production for profit on the collective farms. Or let us see, we could also cut down the number of state farms and make them collective farms again.

What you could also do is promote economies of scale on the agricultural level. But we are going to need, the problem is that the tractors break down and then there is going to leave a whole influx of farm labor and, there is a shortage of labor in industry. We are going to have to train a lot of agricultural workers. Let us see, if we increase, it is going to be a tight squeeze. The best way to go about the whole business, to increase productivity. What I am going to recommend? Which will not sound capitalistic. Okay, so what you do is promote increased mechanization of the farms. We have got to increase tractor production but the problem with that is that it will take money away from the military sector. Well, and the United States is increasing its defense budget like mad. Well, now are we going to do this? Well, what we are going to have to do is take some money out of the defense sector and into agriculture because military power is not going to be the only way to solve world problems, we need a little diplomacy here. What we are going to do the best way to increase agricultural productivity in the Soviet Union would be to take money out of defense and promote tractor building. Put the money into the tractor building industry which will increase tractor production in the Soviet Union to promote mechanization of agriculture. And then what you have

got to do is increase fertilizer production. And then you have to provide for adequate incentives for the collective farmers to increase their grain productivity. In fact, what we have got to do is decrease the amount of money in the savings accounts in the Soviet Union because there is just so much money in the savings accounts. But the problem is if we increase, darn, if we increase the price of bread there will be food riots in the Soviet Union. We can't do that either.

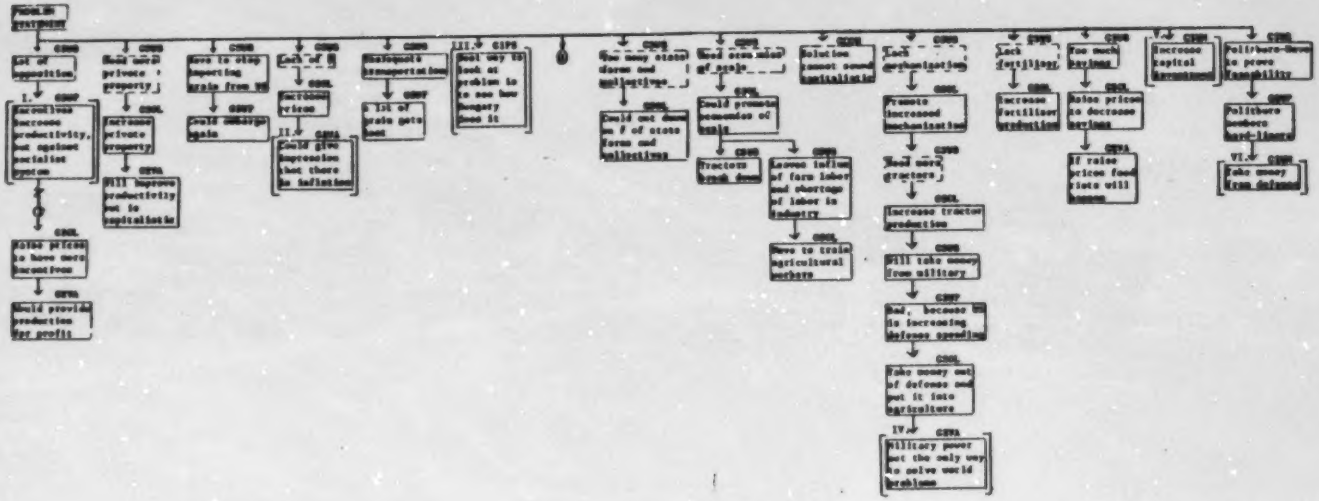
Well, what we have got to do, this is a toughie, well, the best way we can do it is promote economies of scale in agriculture to further the amount of state farms. We should kind of take our cue from aggregate business in the United States to see, or what could be done is to divide state farms and make them more manageable, that sounds good. For example, to decrease the amount of collective farms, but increase the number of state farms and then what you do is increase the supply of agricultural kind of subsidize their ability to buy agricultural machinery so that they could have more agricultural machinery, more tractors, more fertilizer. That will free up a lot of labor that can go into industry in the Soviet Union. That will further increase industrial growth in the Soviet Union.

So basically, the solution to increase agricultural productivity is to increase capital investment in agricultural-related industry, like the tractor and the fertilizer, it will put people out of the countryside and into the cities and then what we do is build increased schools for people in the cities so that they can be trained to use, so that we can pour more money into increased industrial growth, more workers will go there, freed from the countryside, and it will be more. That is really the best way to go about it for now, to increase

agricultural productivity. There will be... and also to increase the pay of state farm workers and to promote the amount of amenities in the countryside so that life in the countryside will not be all that boring.

So basically, the solution is not just related to the Ministry of Agriculture, it is a whole lot of variables in a situation. But really that will be the best way to do it so that, but it will involve, the big risk involved will be taking money out of the defense and heavy industries into the light and agriculture-related ministries, and the problem right now in the Politburo is political feasibility. Because a number of Politburo members, especially people like Grisyan, like Techenov, and all the metal eaters, like Dolgi, and those guys. They are just not going to be politically feasible now, but it probably will be politically feasible in the near future when we are facing bread riots, when we are facing crisis proportions in our agriculture and so the people will have to realize that something will have to be done about our agriculture and so this will, this will basically be the solution, to take money out of the defense and heavy industry into the light industries, develop tractors, and agricultural related industry, and that will take people off the countryside, into the urban areas. That will relieve the labor shortage in the urban areas. So that is really the solution that I propose to the whole agricultural, to increase agricultural productivity. It will not sound capitalistic at all.

Graduate Student A



I. GSUP

(RARG) There is going to be a lot of opposition
(RSAS) Can increase incentives, but against the socialist system
(RSAS) Measures I might propose might be rejected by Politburo
(RPSC) Kieryenka might reject measures

II. GEVA

(RARG) Could increase prices
(ROUT) Could give impression that there is inflation in USSR
(ROUT) Could decrease lines at grocery store
(RQUA) But it is going to increase inflation
(RSAS) Don't want it to appear as if inflation problem exists

III. GIPS

(RARG) Best way to look at problem is to see how Hungary does it
(RPSC) Have a rent a crop system
(RELA) Urban dwellers rent private plots

IV. GEVA

(RARG) Take money out of defense and put it into agriculture
(RREA) Military power not the only way to solve world problems
(RELA) Need a little diplomacy
(RELA) Take money out of defense and put it into tractor building
(ROUT) Will promote mechanization of agriculture

V. GSUM

(RARG) Increase capital investment in agriculture
(RPSC) Into tractors
(RPSC) Into fertilizers
(ROUT) It will move people out of countryside and into cities
(RREA) So they can be trained
(ROUT) We can put more money into increased industrial growth
(RCON) Best way to go for now
(RREA) Will be able to increase pay of state farm workers
(RELA) Promote the amount of amenities in countryside
(ROUT) Life in countryside won't be so boring
(RCON) Solution not just related to Ministry of Agriculture
(RREA) Whole lot of variables exist
(RSAS) Big risk will be taking money defense and heavy industries and putting it into agriculture

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VI.GSUM

(RARG) Probably not a politically feasible solution now
(RQUA) But will be when there are bread riots
(RREA) Then people will realize that something must be done
(RCON) So solution will be to take money from defense and put it into agriculture
(RELA) Put it into tractor development
(ROUT) Will take people out of countryside into urban areas
(ROUT) Will relieve labor shortage in urban areas
(RCON) Solution will not sound capitalistic

Graduate Student B

First of all you would have to consider two contexts in the broad sense, one is the internal context, and the other would be the international one. And the internal context is obviously going to be critical for grain production to be increased for the sake of maintaining social peace and order. In that sense you should offer incentives internally, incentives in the sense of economic barter exchange, in the sense of, for the local producer to produce more, try to get the private farmer to be integrated into the state market system. On the state level, within the domestic context, one would have to look at the productivity of state farms- if they should be more centralized or decentralized. In other words, on the state level, what you would want to look at is a thorough-going study of the productivity of state farms as opposed to private farms.

In the past years, private farms have produced more than state farms, but the techniques from private farms have not been integrated into the state farming sector. And that would be an option. One would also have to consider the various provinces and the regions, and the incentives for productivity one might want to offer. The Ukraine, for example, has been very good as far as production in the last five years. Other areas, such as South Georgia, have not been as strong.

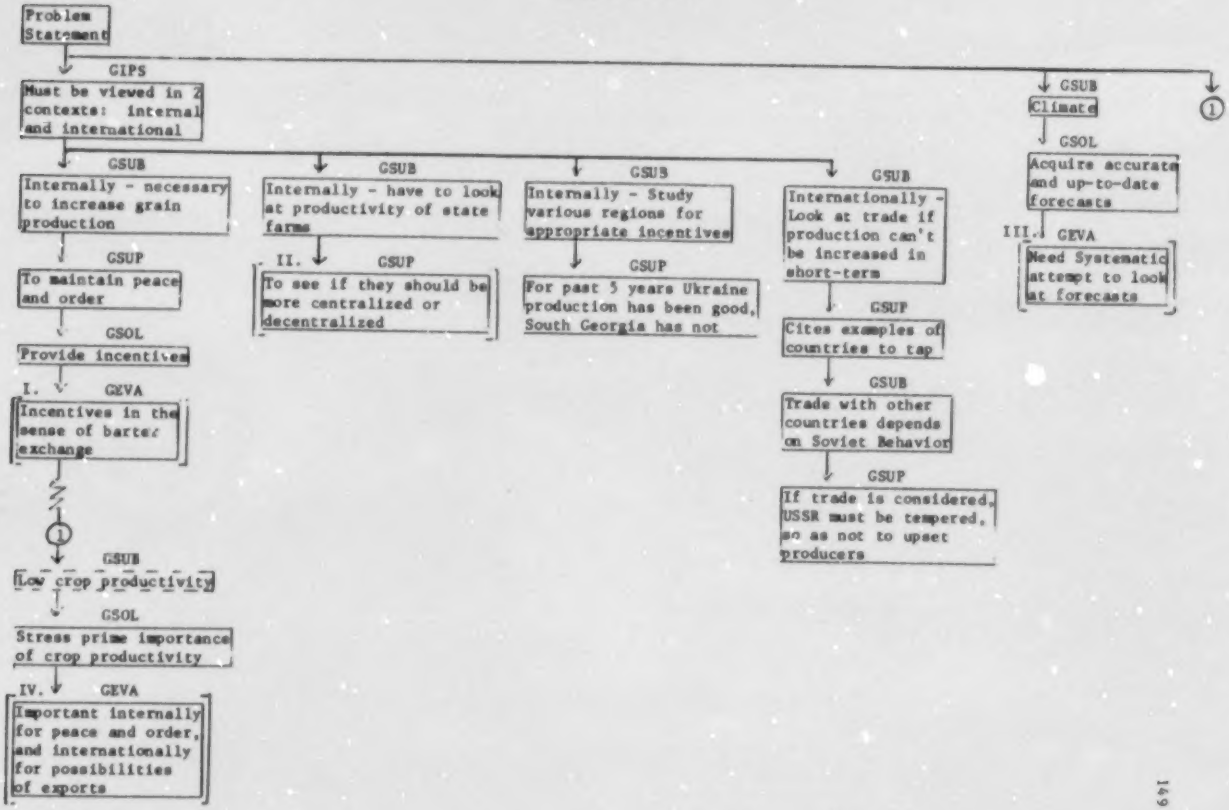
On the international scene, you would have to look at the possibilities of trade if productivity could not be increased, in the short term. Australia, New Zealand, Argentina, and perhaps even the United States could be tapped. Canada, of course, is a prime factor to be considered as well. Such considerations would also rest upon Soviet behavior in the international as well. So Soviet behavior, if crop

productivity was to be an overall objective of Soviet policy internally, then Soviet behavior externally would have to be tempered in such a way so as not to upset producers or cause problems in international trade and exchange between potential grain producers and the Soviet Union. Some extraneous factors that would have to be considered would be for example climate. One would want to acquire the most accurate and up-to-date forecasts one could, not only from Soviet sources, but from other sources as well. This would include not only within the Soviet Union but also with regard to other countries. Projected crop performance given changes in climate and such, for example, Canada and Australia. Argentina's grain crop for the past three years has been fairly large, but a change, a shift in the climate, in some small way could create some problems, and thereby eliminate Argentina as a viable source.

In past years, the Soviet Union has not been very successful in predicting, or at least reacting to, successful predictions of climate changes. A more systematic attempt to both look at forecasts and integrate them into the planting and harvesting season would have to be looked at. For the most part, it would be of prime importance to stress that crop productivity is critical for the Soviet Union. In the internal scene, not only with regards to maintaining social order and peace, but also on the international scene for the possibility of exports, as well. If for example, the Soviet Union does indeed have to import grain as it has since 1974 at various times and to varying degrees, the impact upon currency, exchange markets, gold sales, and exports of other kinds, including petroleum, especially, for example, to Argentina, would also have to be considered. But it becomes crucial, from my point of view, if I am talking from the point of view that I am

assigned here, that crop productivity becomes a priority in overall Soviet objectives, both domestic policy and foreign policy as well.

Graduate Student B


Problem Statement
GIPS
Must be viewed in 2 contexts: internal and international
GSUB
Internally - necessary to increase grain production
GSUP
To maintain peace and order
GSOL
Provide incentives
I. GEVA
Incentives in the sense of barter exchange
1
GSUB
Low crop productivity
GSOL
Stress prime importance of crop productivity
IV. GEVA
Important internally for peace and order, and internationally for possibilities of exports
GSUB
Internally - have to look at productivity of state farms
II. GSUP
To see if they should be more centralized or decentralized
GSUB
Internally - Study various regions for appropriate incentives
GSUP
For past 5 years Ukraine production has been good, South Georgia has not
GSUB
Internationally - Look at trade if production can't be increased in short-term
GSUP
Cites examples of countries to tap
GSUB
Trade with other countries depends on Soviet Behavior
GSUP
If trade is considered, USSR must be tempered, so as not to upset producers
GSUB
Climate
GSOL
Acquire accurate and up-to-date forecasts
III. GEVA
Need Systematic attempt to look at forecasts
1

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I. GEVA

(RARG) Offer incentives internally
(RELA) In the sense of economic barter exchange
(RREA) To get the private farmer to be integrated into the state market system

II. GSUP

(RARG) Look at state farm productivity
(RREA) To see if they should be more centralized or decentralized
(RELA) Thorough study of state farms vs. private farms
(RFAC) In past years private farms have produced more than state farms
(RFAC) Techniques from private farms have not been integrated into state farm system
(RCON) This might be an option

III. GEVA

(RARG) Need to acquire accurate and up-to-date forecasts
(RELA) From Soviet Union and other sources
(RELA) Regarding Soviet Union and other countries
(RELA) Projected crop performance given climate changes
(RPSC) From Canada and Australia
(RREA) Argentina's crop for past 3 years has been fairly large but a change in climate could eliminate it as a source
(RREA) In the past, USSR not good with predictions
(RQUA) At least reacting to them
(RCON) Need a systematic attempt to look at forecast and integrate with planting and harvesting

IV. GEVA

(RARG) Stress prime importance of crop productivity
(RREA) Maintains social order and peace internally
(RREA) Make exports a possiblity, internationally
(RELA) If USSR has to import grain have to consider impact on exchange markets, etc.
(RPSC) Like petroleum to Argentina
(RCON) Crucial that crop productivity becomes priority in both domestic and foreign policy

Graduate Student C

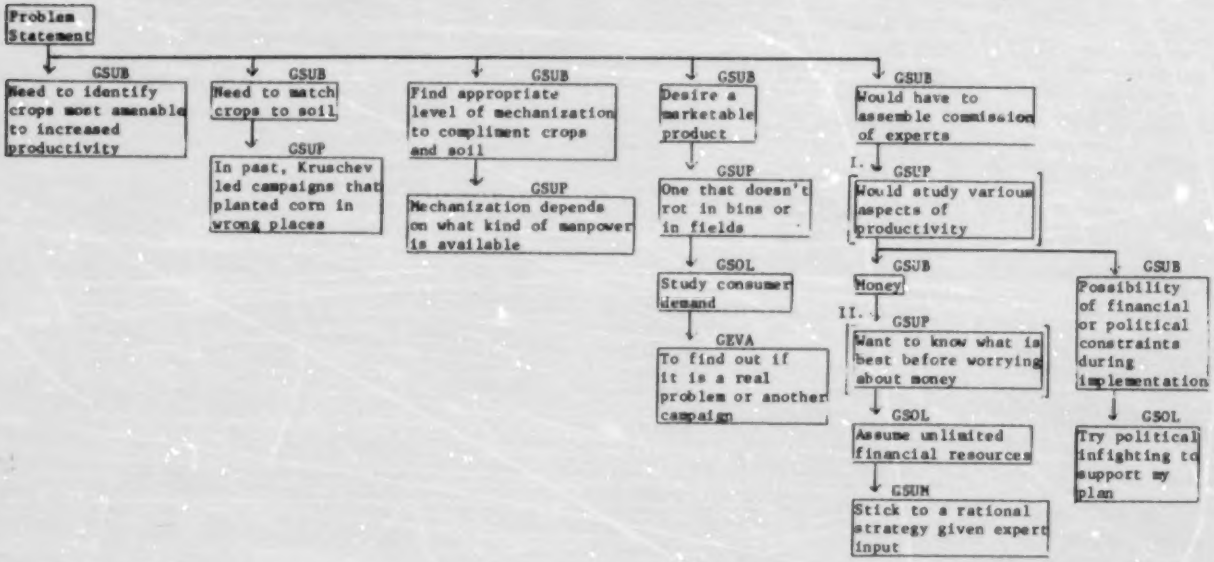
Okay, well, since this is a problem not without real-world referent. First thing, I would do is identify crops that can most easily be, well, that are most amenable to increased productivity. So I would look at the crop types that I want. Of course I would try to map them to the most logical soils for them to grow in. A lot of times in the past when like Khrushchev has tried to have corn planting, you know, campaigns, it was planted in the wrong places. Okay, so I am looking at crop type, soils, and I would look for an appropriate level of mechanization to compliment the types of crops and the places I want them to be. So I would look at the appropriate level of mechanization. Now, having thought very quickly, these appear to be the three main variables that I would want to look at. Well, of course, also manpower. But that is sort of a subset of mechanization, which will depend on what kinds of manpower you have. I want to increase crop productivity.

Okay, now, my personal predisposition is not just to raise productivity per se, I would want to also come up with a marketable product. Something that doesn't rot in storage bins or get rained on and rot in the fields. So I would look at consumer demand, what kind of shortages do I have in society? Is this just a storming campaign to hit an arbitrary production target? Or, you know, does it really make sense in terms of Soviet society? So, I would try to assemble a little inter-advisory commission of experts, maybe from ministries of science, from collective farms, state farms, and I will say, okay, look, we have got these sorts of regions that are arable that we can plant. Give me a map, soil types, what grows here? Okay, you fellows get together, and take these arable lands, put them in some sort of coherent regions, so

then we will look at regions. Maybe regions A through F or A through X, depends on how many. And then I would get a breakdown. What kinds of soils are here? What kinds of crops grow in these soils? And what are the objectives, sort of, infrastructural needs for accommodating these types of crops in these types of locales? So I would let these experts recess for a day or two, a week, two months, and we would reconvene and I would take a good hard look at the types of objective data that they are presenting me with. And I will look at my own gut level impressions of what Soviet society needs, as far as increasing consumer satisfaction and on and on and on. I didn't mention how much money I have to spend. But of course I would like to get this best of all possible worlds sort of picture before I start worrying about money. Now if I wanted the most sprouting things per rubble, then I may plant an inappropriate mix. So I would like to get this sort of rational picture mapped out before I worry about money. And then of course, there is going to be trade-offs, invest in stuff that produces a lot of roughage versus investing in things that people really want to buy, maybe rye, cause you can make vodka and bread from it, I don't know, maybe rye is a hot item.

So I would tend to assume that if I was the Minister of Agriculture, and agriculture was getting as much priority treatment as it has under Breshznev that I would not be working with limited financial resources. I am assuming, more or less, unlimited financial resources. So I would then try to stick to as rational and strategy as was possible given my expert input and then if sort of financial constraints or political constraints impinged in the implementational phase, then I would just sort of, from my own personal predictions, try and politically in fight to support what I think best mix of crops that I want to see growing.

Graduate Student C



I. GSUP

(RARG) Assemble commission of experts from variety of areas
(RELA) From Ministry of Science Collectives, and state farms
(RREA) To provide them with maps, soil types, etc. so they can put them into coherent regions
(ROUT) Get specific needs of each region and their objectives
(RELA) Have them recess and reconvene to study objectives
(ROUT) Would compare them with my impressions of societal needs

II. GSUP

(RARG) Would want to know what is best before worrying about money
(RREA) If wanted to get most sprouts per ruble might plant inappropriate mix
(RREA) There are trade-offs
(RELA) Invest in stuff that produces a lot of ruffage vs. what people really want to buy
(RPSC) Rye, for bread and vodka

Non-expert Expert A

If the Director of Agriculture for the Soviet Union can't solve the problem, I am not so presumptuous as to think I might be able to do it. I suppose that in solving this problem, the first thing that I would have to do would be to try to figure out what the patterns of production were in various parts of the country, what parts of the agricultural problem can be attributed to weather, things beyond the control of human beings who work in agriculture. If you're asking me to solve the problem, I have to tell you flat out I can't do it. The only thing I would be able to do supposedly would be to set up some systematic investigation of why the problem is the way it is.

I'm somewhat familiar with the problems of agricultural production in Latin American, and not with the Soviet Union at all, and I know that part of the problem in Latin America is the fact that the government doesn't invest enough in the infrastructural aspects of agriculture, such as granting credit for fertilizers and infrastructural aspects like roads and transportation so that people can get their things to the market. I suppose one of the things I would have to do is to make sure that of all--I know the Director of Agriculture in the Soviet Union would be very, very similar to a member of a pressure group who would be trying to get scarce resources from the Soviet budget, just as that would occur in any country. And so I guess I'd have to do two things: I'd have to know exactly what the problem was, and I'd have to wage a campaign in order to get more resources for my particular sector of the economy.

I'm not an agriculturalist and I don't know any of the problems involved at all. I suppose that's why you got me here, because you knew I wasn't an expert in agriculture. I think that some of the problems in agricultural production have to do with low incentives on the part of people who produce, so really probably what we've got is an economic problem, an infrastructural problem, a morale problem to some extent.

Part of the problem in the Soviet Union I suppose can be laid on the doorsteps of a certain amount of collectivization of agriculture. I think that I believe that human beings are probably going to produce and take care of things best that they themselves are responsible for and actually own. In Poland, for example, a lot more agriculture is in the hands of private farmers and their production seems to be better. Even though Poland has got its problems right now, one of the problems you don't hear so much about is Polish agriculture. I think something like 80 percent of Polish agriculture is in the hands, or the land is owned by the farmers who work it. I'm not sure at this point in the Soviet Union whether politically it would be feasible at all to think about turning over more plots of land to individuals to let them work it. I think I know at least in the Soviet Union that great tracts of land, huge tracts of land, are farmed in much the same way that they are in the United States, in a sort of agro-complex, but they are state owned and the people who work on them, of course, work on state-owned farms for the most part. So I suppose I'd have to investigate the extent to which I thought the people who work on agriculture were demoralized or not demoralized, the extent to which their productivity could be increased.

I've been impressed over the years that part of the Soviet Union's problem with respect to agriculture is just a lot of bad luck. They've had a lot of climatic kinds of problems, a lot of seasonal and a lot of torrential rains, a lot of frosts and so forth, in that huge land of theirs. I suppose to some extent we've been spared a lot of that, although it could happen in the United States as well. You can plan and plan and plan and lay down beautiful projects and so forth and if the weather doesn't cooperate, of course, you're in bad trouble.

At any rate, I've tried to solve the problem by taking a look at the patterns of production, by taking a look at how I felt. The farmers who are producing and the attitudes and so forth, as well, I suppose, as try to make sure that I had what was considered to be a proper investment in agricultural infrastructural aspects of the economy, as Director of Agriculture.

I've never fancied myself to be a politician, really, and that's what this man would have to be. We think of the Soviet Union as being a very closely tied-together system, where everything is dictated by the Communist Party. In fact that's not true. There are as many pressure groups within the Communist Party vying for their piece of the pie as one might expect from a more pluralistic system. You say solve the problem. I'm telling you that I probably wouldn't be able to give you any answers in this bright room. I've probably said as much as I know about agriculture.

The only other thing I would comment on is the interesting problem of grains in the world as a whole. Many Latin American countries import far more grain, much more grain, than they can possibly produce, because people eat bread. Bread seems to be the staple of human beings more or less over the earth, except in more affluent societies where more animal protein can be consumed. It is a very interesting thing how many countries in the world who depend on wheat have to depend on the United States and Canada and Argentina and other huge grain-producing countries, in order to get just the flour for the bread that they consume, and the Soviet Union is in the same situation, interestingly enough. There is something very, very wrong with Soviet agriculture. The potential is there. I would have to do a lot more investigating to see whether I felt that most of the problem was due to the types of incentives that are produced when people don't work on their own land, whether most of the problem is due to things beyond the control of the Director of Agriculture in the Soviet Union, or whether the problems are more along the lines of just not enough investment in advancing agricultural methods in ways to keep the soil fertile, and to make sure that crops are produced at a reasonably high rate.

So, you've put me on to a problem that I don't think that I could solve, but that one would probably need a lot more information on before one can sort it out. Those three areas at least are the areas that I would try to investigate further. And I suppose if I were the new Director of Agriculture in the Soviet Union I probably wouldn't have any better answers for you the day after I was put in, maybe. That would be very presumptuous for me to say, I suppose, but I guess my point is that I'm not sure that any new Director of Agriculture in the Soviet Union could give you very good answers 24 hours after he was made Director of

Agriculture about what he would do, if he were honest with himself, I suppose. Maybe not to the extent that I wouldn't be able to give you answers, but I'm sure there would be a lot of questions that he would hedge on and say well, you know, we've got to check this out and check this out and give me a month at least and I'll have come up with a new plan. I suppose lots of politicians come into an either appointed or elected office with grand designs about what they're going to do, but I remember one Argentine president who was sworn in in 1956 I think, who was an opposition candidate, had all sorts of grand designs about how he was going to improve the Argentine economy, and as President-Elect he was doing the same thing that Reagan is doing right now, he was in a transition-kind-of situation. And even before he was sworn in as President one of the statements he made to the press is well, things look different from the other side of a desk.

I'm sitting on this side of the desk pretending as if I'm the President and I can see a lot of problems I'm going to have to face. Reagan's doing the same thing. He's hedging on abolishing the Department of Education, for which I'm sure LRDC and other places are very anxious that he not act abruptly with respect to that campaign promise, and I assume that the Director of Agriculture in the Soviet Union, regardless of the grand design which he might have had before he went into office would probably have to postpone for at least a few days some answers that he might be asked to give about how to improve Soviet agriculture. So, I guess I can use the same cop out that I expect that a politician might ask begging time let me check on this and we'll come up with a plan.

My general observation is that human beings are pretty much alike, especially with respect to Presidential succession in the United States. We don't very often get a superman-kind of president who makes the previous president look very bad by saying well everything you did was bad. Every president's surrounded with pretty good advisors. Very often, policies don't change very much from president to president. I suspect that you won't find in the Soviet Union when a new Director of Agriculture comes in that he's going to show up to any great degree his predecessor, because his predecessor was obviously capable or he wouldn't have been chosen in the first place. He was fighting with some problems which are very stubborn ones and long-lasting ones. I don't suppose that you're going find very many times when anybody comes in with a miracle or a miraculous solution to a problem that's as nagging as the problem of Soviet agriculture.

I. GIPS

(RARG) Have to examine problem within the Latin American context with which I am familiar
(RSAS) Not enough government investment in infrastructure
(RPSC) Granting credit for fertilizers
(RPSC) For roads and transportation
(ROUT) People can't get their things to market

II. GSUP

(RARG) Problem is really economic
(RPSC) Low incentives for people who produce
(RPSC) Infrastructural
(RPSC) Morale

III. GSUP

(RARG) Collectivization is part of problem
(RREA) Humans produce and take better care of things they own and are responsible for
(RCOM) In Poland, more agriculture is in hands of private farmers
(ROUT) Production is better
(RQUA) Even though Poland has problems
(RFAC) Agriculture is not one of them
(RFAC) 80% of agricultural land is in hands of private farmers
(RCOM) Not sure if it is politically feasible to turn land over to individuals to let them work
(RCOM) There are great tracts of land, farmed in the same way as US agro-complexes are
(RQUA) They are state owned though

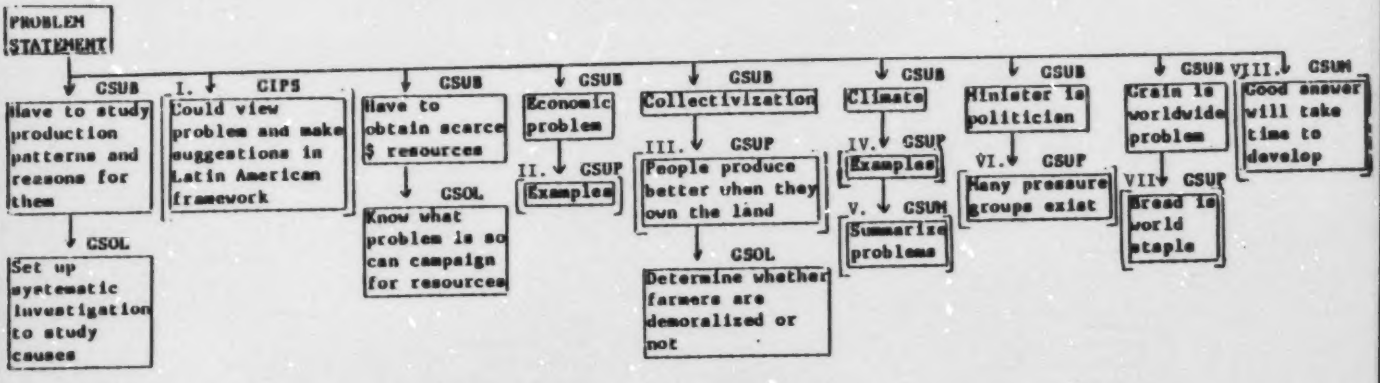
IV. GSUP

(RARG) USSR has had bad luck with climatic problems
(RPSC) Torrential rains, a lot of frosts
(RCOM) Have been spared this in US
(RQUA) But it could happen
(RCON) With the best plans, if weather doesn't cooperate, you have trouble

V. GSUM

(RARG) Review problems
(RPSC) Look at patterns of production
(RPSC) Look at attitudes of farmers
(RPSC) Consider what would be proper investment in agricultural infrastructure

Non-expert Expert A



VI.GSUP

(RARG) Minister of Agriculture would have to be politician
(RSAS) USSR viewed as a closely tied system where everything is dictated by the party
(RFAC) Not true
(RREA) Because there are as many pressure groups within the Party as one would expect from a pluralistic system

VII.GSUP

(RARG) Grain is a worldwide problem
(RPSC) Latin America imports much more than they can produce
(RREA) Because people eat bread
(RELA) Bread is staple all over world
(RQUA) Except in more affluent societies where more animal protein is consumed
(RPSC) Many countries have to depend on US, Canada, Argentina, and other grain-producing countries to get flour for their bread
(RPSC) Soviet Union is in this situation
(RCON) Something is very wrong with Soviet agriculture
(RREA) The potential is there
(RCON) Would have to investigate to find cause
(RPSC) Whether incentives
(RPSC) Whether beyond our control
(RPSC) Whether lack of investments in agricultural methods
(RCON) These are 3 areas for further investigation

(RARG) It will take time for a new minister to have good answers to the problem

(RQUA) If he is honest with himself
(RREA) Would have to hedge on things and ask for time to check things out
(RSAS) Lots of politicians enter office with grand schemes
(RPSC) Like Argentina president in 1956 who had grand designs for the economy
(RPSC) Like President-elect Reagan is doing now
(RCOM) Things look different from the other side of the desk
(RQUA) I am on the pretending side of the desk now
(RFAC) You can see Reagan hedging now
(RPSC) Like on abolishing the Department of Education
(RCOM) I imagine the Minister would have to postpone some decisions too
(RQUA) Regardless of the grand design he might have had before
(RCOM) Can use the same cop out- begging time to come up with a plan
(RCOM) Human beings are all alike
(RELA) Especially with respect to presidential succession in US
(RELA) Don't often get a superman-kind of president
(RELA) Every president is surrounded by good advisors
(RELA) Policies doen't often change much from president to president
(RCOM) Suspect this holds for the Director of Agriculture in the USSR
(RELA) He won't show his predecessor up to any great degree
(RREA) Predecessor was capable in the first place
(RREA) Fighting with the same problems
(RCOM) Won't be a miracle solution to as nagging a problem as Soviet agriculture

Non-expert Expert B

First of all I would like to know about the role of the Director of Agriculture. If he is dealing will all the states, regions, of the Soviet Union, and I am assuming here that my role is over the whole country, then I would think that there are two possibilities: Either to substitute in the first instance the imports of grain or whatever from the United States--if this could be imported from other countries as a substitute. Then, of course, I would try to study how the country itself would produce more. This means that we will have to go through a survey of all available lands, all techniques. See whether the planing organization is good and response is an increase, how much, in how much time. So this would be more or less the framework in which I would be working.

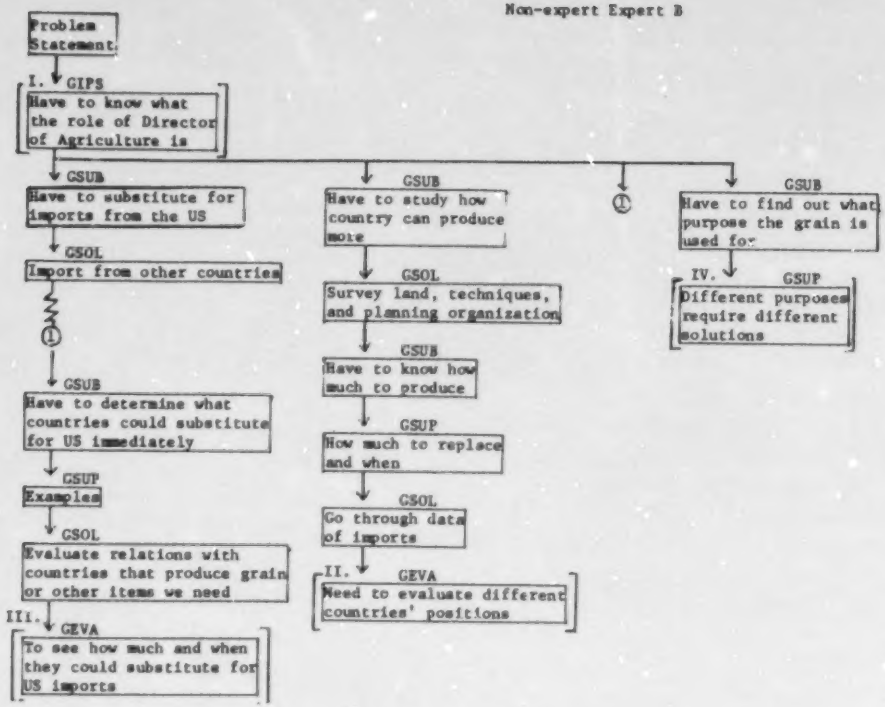
I think that the first point would be to know how much we have to produce, how much do we have to replace now, immediately, in three years time, in six year, ten years time. What has been the growth, for example. I would go through the data of imports from the US or other countries, because if the US is taking such a harsh position today, other countries, because if the US is taking such a harsh position today, other countries could do that under the pressure of the US or under their own pressure some day. So, how much. Analysis of data.

Then the second thing would be which would be the countries which could immediately substitute for the US, Canada, Europe, Asia, Latin America, Africa. I would go, for example, through all the countries which are producing grains I need or any other products I need and see what are our relations with these countries. What is their distribution in the world production and the world trade of that or those

commodities. What are their elasticity in production, which means that given the land available in those countries, given their type of administration, given their organization, given an increase of input and an incentive on the price of the commodity, on wheat or in grain, how much would they produce. So, I think I'll deal with the commercial attache of our embassies in all these countries and try to analyze their data. How could they substitute the US import, how much, and, again, in how much time. As for the analysis inside, I will try to know for what purpose are we using this grain import from the US. If it was for human consumption, then this means that we have to find a substitute immediately, almost at any cost. If it were for animal food production, animal feed or whatever it is called, then we will try to know whether we could substitute that quantity of protein by another crop, maize or whatever.

So, I would think that in the analysis we have to know a lot of data about how the import is being used by the Soviet Union. Then the whatever solutions would be adopted would be dealing mostly with these data.

Non-expert Expert B


Problem Statement
I. GIPS
Have to know what the role of Director of Agriculture is
GSUB
Have to substitute for imports from the US
GSOL
Import from other countries
1
GSUB
Have to determine what countries could substitute for US immediately
GSUP
Examples
GSOL
Evaluate relations with countries that produce grain or other items we need
III. GEVA
To see how much and when they could substitute for US imports
GSUB
Have to study how country can produce more
GSOL
Survey land, techniques, and planning organization
GSUB
Have to know how much to produce
GSUP
How much to replace and when
GSOL
Go through data of imports
II. GEVA
Need to evaluate different countries' positions
1
GSUB
Have to find out what purpose the grain is used for
IV. GSUP
Different purposes require different solutions

I. GIPS

(RARG) Have to know what the role of Director of Agriculture is
(RSAS) Assuming that my role is over the whole country

II. GEVA

(RARG) Go through data of imports from US and other countries
(RREA) US is taking such a harsh position, that other countries may do so under pressure
(RCON) Have to analyze data to determine what is needed

III. GEVA

(RARG) Go through countries producing grains and other products needed to see what relations are
(RELA) What is their distribution is world production of certain commodities
(RELA) What is their elasticity in production
(RELA) How much would they produce given land available
(RELA) How much would they produce given their administration
(RELA) How much would they produce given their organization
(RELA) How much would they produce given increase of input
(RELA) How much would they produce given an incentive on the price of the commodity
(RPSC) Wheat or grain
(RCON) Deal with commercial attache of our embassies to analyze their data
(RELA) How much they could substitute the US imports in how much time

IV. GSUP

(RARG) Have to find out what purpose grain from US will be used for
(RREA) If for human consumption, then will have to be substituted for immediately
(RELA) Subotitute at almost any cost
(RREA) If for animal food production, could substitute protein by another crop
(RCON) So we would have to know a lot of data about how the import is being used to find solution

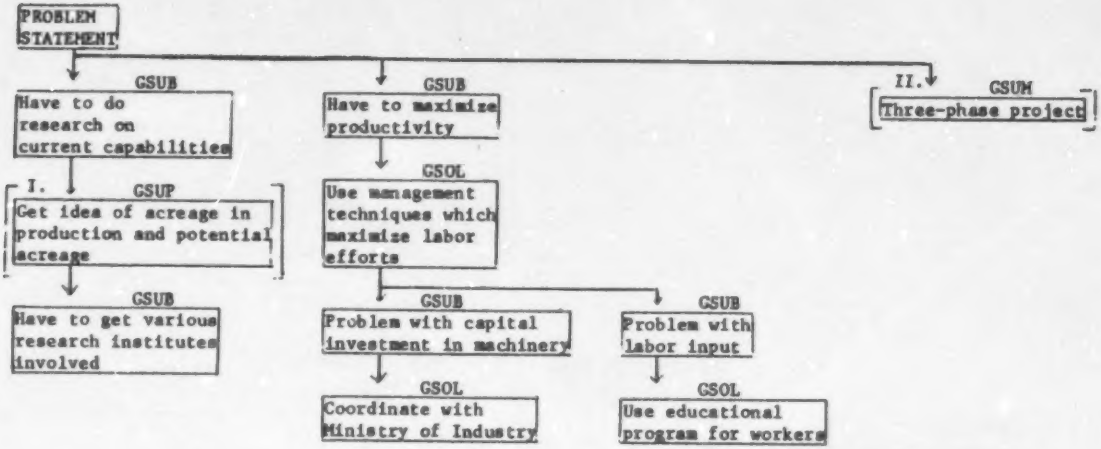
Non-expert Expert C

Research and doing inventory on our current capabilities. Look at the number of acres in production, the number of acres that potentially could go into production. Get some sort of estimate on the acreage that is in production, what factor (increase) we could expect on the currently producing acreage. The next trick of course is to find out how many acres in the Soviet Union are suitable, or could be made suitable, for grain production. After that the question is what kind of fertilizers, chemicals, artifical or conditioning, could be employed in taking marginal agricultural land and making it suitable for grain production. That becomes a research task. The question then is to get the various institutes, or however the Soviet educational system works, not the education system, research system works, involved in that.

I guess the next level beyond investigation into land potentials is working with the agricultural workers and coming up with management techniques that are going to maximize their efforts, their productivity. So I guess we have now the question of maximizing productivity. One is the agricultural input and the other is the labor input. We're going to have to, of course, come up with some kind of question about our investment capital, investment into machinery and other inputs into the agricultural sector. I suppose that would necessarily involve some kind of coordination with the Ministry of Industry or whatever the title is, and coordination in output of farm machinery. I suppose some sort of, getting back to the labor input, we have to work out some kind of educational program for agricultural workers, expanded extension service.

Okay, so we have a three phase project. The first is a research task, which involves an inventory on acres in production, an assessment of how many acres not currently used in grain production could be converted to grain production. Part of that second task would be to assess the costs of taking some land away from other activities and taking it to grain production. With respect to both the marginal grain producing areas and areas already in production, research on raising productivity per acre is essential. And that, I'm going to have to delegate that to my deputy administrator in charge of agricultural research. The next prong in this three-pronged attack will be dedicated to improving the labor input into grain production. We will look at the average productivity per worker per acre, the amount of mechanization involved in grain production, attempt to assess to what extent increased mechanization would increase output, attempting to avoid needless over-mechanization and excessive costs. The third prong in our attack on the imperialist grain embargo will be an investment strategy in the long term input into increased agricultural machinery and fertilizer.

Non-expert Expert C



I. GSUP

(RARG) Research current capabilities
(RELA) Look at number of acres in production
(RELA) Look at acreage that has potential for production
(RELA) Get estimate of increase in production
(RELA) Find out number of acres suitable for grain production
(RPSC) Consider effects of fertilizers, and Chemicals on making marginal land suitable for grain production
(RCOM) Becomes a research task

II. GSUM

(RARG) Have a 3-phase project
(RPSC) Inventory acres in production and not in production
(RELA) Assess costs of taking land from other activities and making it grain producing
(RELA) With respect to marginal grain production
(RELA) Research on raising productivity is essential
(RPSC) Delegate this to deputy administrator in charge of research
(RPSC) Improve labor input into grain production
(RELA) Look at productivity per acre per worker
(RELA) Look at amount of mechanization
(RELA) Assess what increased mechanization is needed to increase output
(RELA) Avoid over-mechanization and excessive costs
(RPSC) Develop investment strategy in long term input into increased agricultural machinery and fertilizer

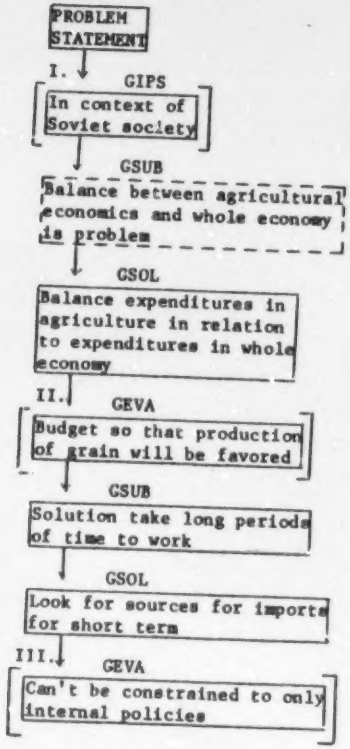
Non-expert Expert D

First of all I think I would have to place myself in the context of the Soviet society and the Soviet political system. And it is going to limit my resources to solve this problem. Now, it seems to me in this context and knowing that all the agricultural land or all the land belongs to the state, I have to act directly in order to improve the grain production of the country. It seems to me that I can attack this problem through different mechanisms, because I'm also having the control of the whole economy at the same time. So, through these mechanisms, through different economic mechanisms, I can attack also the problem indirectly. So, what I'm proposing basically is two approaches: one directly through the agricultural system, and one indirectly through the whole economic system to improve the production.

Indirectly, I think what I could do would be to strike some kind of balance between the expenditures in agriculture and the expenditures in the whole economy, expenditures in the other areas of the economy, in such a way that the agricultural production, and especially the production of grains, will be largely favored within the budget to improve the production, so one thing will be through the budget to increase the amount of money that is devoted to the sector. Through this mechanism also I will invest directly in the grain production, and by this I mean I will provide seeds, fertilizers, and machinery to those peasants working in grain production.

Since I am aware that these issues tend to work in the long range, I wouldn't constrain myself to these internal policies, and I will look for new sources of imports. I would look among the friendly countries of the Soviet Union, where to find grains in the short range. When you have this kind of a problem it will take a few years until the seeds and the fertilizers and the new machinery improves the production. So, certainly, I will try for the short range to make some kind of international arrangements with those countries that are grain producers and would be willing to sell to the Soviet Union.

Non-expert Expert D



I.GIPS

(RARG) Solution must be considered within the context of Soviet Society and Soviet political system
(ROUT) This will limit resources
(RFAC) All agricultural land belongs to state
(RCON) Must act directly to improve grain production
(RSAS) Can attack problem through different mechanisms
(RREA) Have control over whole economy at the same time
(ROUT) Therefore, can also attack problem indirectly
(RCON) Can solve directly through agricultural system or indirectly through economic system

II.GEVA

(RARG) Strike a balance between expenditures in agriculture and those in rest of economy
(ROUT) Agriculture will be largely favored within the budget
(RQUA) Especially grain production
(RPSC) Increase amount of money devoted to the agricultural sector
(RELA) Invest directly in grain production
(RELA) Provide seeds, fertilizers and machinery to peasants working in grain production

III.GEVA

(RARG) Sources for imports will help shortage for short range
(RREA) Because internal policy making may take long time to work
(RELA) Would look among friendly countries to find grain
(RREA) May take a few years until seeds, fertilizer and machinery improve production
(RCON) Look for international arrangements with grain producing countries for supplies

Domestic Policy Expert

Agriculture

Well if I were in the Soviet Ministry of Agriculture, I would have to assume that I did not get there other than by being a Communist party loyalist. Therefore, I have been brainwashed with years and years of Marxism-Leninism. So certain kinds of options which might be available in other countries and other situations, namely private individual incentives, increasing payments to farmers, subsidies of various kinds to encourage individual effort are probably not going to be regarded with much favor by my superiors. So even though I have visited the United States, and I have walked through the corn fields in Iowa, and I know that our entire balance in payments is completely screwed up, because we have to import so much agriculture, I am not allowed to do the obvious things, which would help, or if I even think of them or try to do them, I will be certainly shot down at higher levels. So I am therefore stuck. One thing I could do is what has been done in the past, which is simply exhort people to help the homeland and think about the Soviet Union, biggest in the world and all sorts of other glittering generalities.

Another thing I might do, again I do not know since I have never been the Soviet Minister of Agriculture, is to consider the Cuban and the Chinese Model where cadres of young people from the cities were brought in to work in the fields and try to increase production that way. I think Soviet agriculture is somewhat more mechanized than that, so even though that is a good socialist option, that might not work either. So I would find this a rather difficult problem to deal with purely cause no one can control the weather in Siberia.

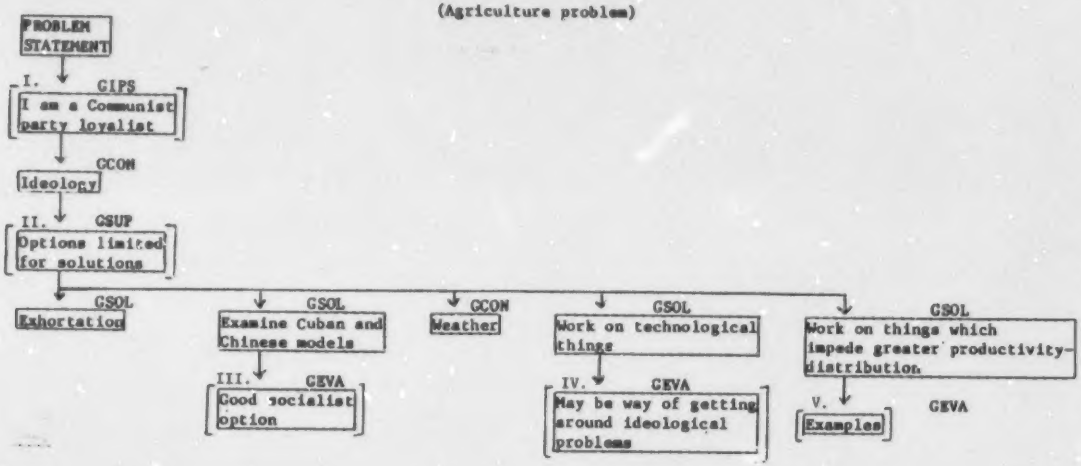
If the human and organizational options are somewhat foreclosed by political or institutional factors probably the safest thing for me to do is to work on technological kinds of things, looking to see if there are any higher yield grains being produced in any other country, then I could probably fiddle that with a central committee, importing technology without giving in to ideological bickering even if does come from the agricultural experiment at a station in DesMoine, Iowa.

I might also be able to do something about some factors in the system which impede productivity such as, shortage of parts, shortages of eyes and machinery problems in distribution of the things you need to use to get production crops going on a large scale. So those would probably be my two best options, trying to import the best possible technology in terms of seed and tractors or fertilizer, whatever and really working on some of the distributional gaps in the system.

And if I can solve some of these problems this might to some extent encourage productivity, if people feel that the system is working better, that they are less frustrated by the bureaucracy above them or by backwards technological methods. But I am not terribly optimistic about the outcome, because as you say productivity has been declining for several years and none of my predecessors had any magic answers either.

Domestic Policy Expert

(Agriculture problem)



I. GIPS

(RARG) If I were in the Soviet Ministry of Agriculture I would have to be a Communist Party loyalist
(ROUT) Therefore I have been brainwashed with Marxist-Leninist theory

II. GSUP

(RARG) Options available to increase individual incentives will not be regarded with favor by superiors
(RPSC) Increasing payments to farmers
(RPSC) Subsidies to encourage individual effort
(RCOM) Have walked through corn fields in Iowa and know USSR balance of payments is screwed up
(RREA) Because USSR has to import so much
(ROUT) I am not allowed to do things which would obviously help
(RREA) Because they would be shot down at higher levels

III. GEVA

(RARG) Consider Cuban and Chinese model
(RELA) Cadres of young people from cities brought to work in fields
(RREA) To try to increase production
(RSAS) I think Soviet agriculture is more mechanized
(RCON) So even though it is a good socialist option, it might not work

IV. GEVA

(RARG) It is safest to work on technological factors
(RPSC) Any higher yield grains being produced?
(RSAS) Could probably deal with the Central Committee about that
(RELA) Importing technology without ideological bickering
(RQUA) Even if it does come from an experiment in Iowa

V. GEVA

(RARG) Do something about factors in system which impede productivity
(RPSC) Shortage of parts
(RPSC) Machinery problems
(RELA) Distribution of things needed to get large scale crop production
(RSAS) Import technology to fill in distributional gaps
(RPSC) Seeds, tractors, fertilizer
(ROUT) If I can solve some of the productivity problems, maybe encourage productivity
(RREA) People will feel system is working better
(RREA) Will be less frustrated by bureaucracy or by backwards technology
(RCON) Not terribly optimistic
(RREA) Because productivity has been declining for years and no predecessors had any answers either

Domestic Policy Expert

Income Tax Problem

There is a small problem here. Given my political background and interests, it is extremely unlikely that President Reagan would ask me to head this particular committee. So, I would have to essentially think very differently from what I might if I were asked as an expert in my own particular areas of interest in tax reform. You are essentially asking me to think like a conservative, business-oriented supply sider, all of which values I tend to question rather seriously. So this involves something of a shift. Nevertheless, I think there are some serious problems with the income tax which are not entirely ideological and some of these, I think, would be such that experts could agree on. As a matter of fact, the recent tax increase that has been passed had many reforms that liberals had been supporting for years and years in terms of improving compliance, withholding of savings and loans interest. These were goals of tax policy professionals as well as liberals, trying to improve the fairness and rationality of the tax system.

There are two major issues to be considered in tax policy. One is called horizontal equity and the other is called vertical equity. The horizontal equity business, which is where you find liberal-conservative agreement, is that everyone with approximately the same income, economic circumstances, should pay approximately the same amount of tax. That is, you should not pay grossly more or less than your neighbor who works in the same type of business, has the same size family, has the same size mortgage and everything. That would be grossly unfair, would be perceived as unfair, and if you have a system that is perceived as

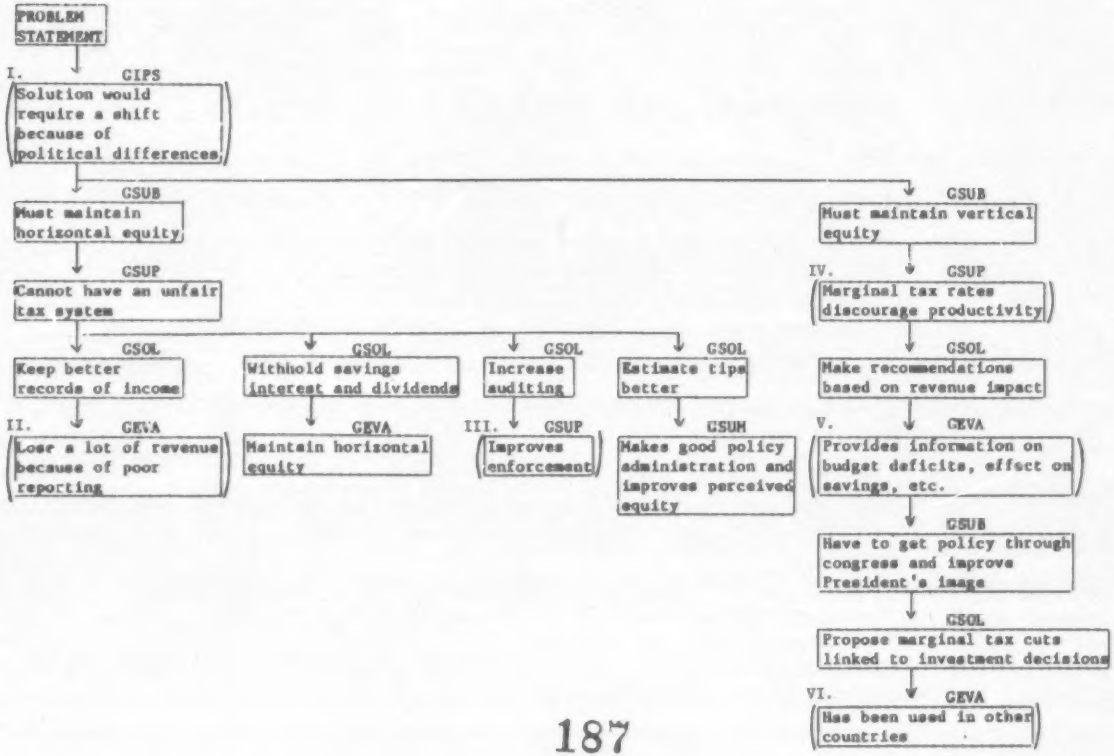
unfair because of this kind of inequity, you have a lot of people cheating because they feel that other people are getting away with things and why shouldn't they get away with them. So a number of solutions have been proposed to deal with the horizontal equity problem. And many of these regard simply to keep better track of all sources of income. The problem often is that people have the same income but it comes from different sources and somebody who earns $30,000 a year from wages and salaries will end up paying a very different rate from somebody who earns $30,000 a year and is self-employed, or is in some way participating in the underground economy, like building houses for kickbacks and so forth. So, a major problem of tax compliance, in terms of the fairness of the system, as well as increasing revenue, because, of course, we are losing a lot of revenue, is to improve horizontal equity.

I therefore would have strongly recommended withholding savings interest and dividends because of the horizontal equity business. Another possibility is increased money spent on auditing procedures so that a higher percentage of people are audited so that enforcement efforts can be stepped up for people who are independent contractors, self-employed, or whatever. And also the new provision to have owners of restaurants and other establishments essentially estimate what tipping would be in their establishment and check that with employee records. These kinds of provisions, although likely to be seen as onerous by a good many conservatives who want to keep the government off their back, nevertheless, make very good sense in terms of tax policy administration and should increase the perceived equity of the system and, therefore, have a very good policy basis.

The other issue is that of vertical equity which is a question of, basically, marginal tax rates. We have had a progressive tax system, which means that higher incomes pay a higher marginal tax rate. The very strong philosophy of this administration has been that these marginal tax rates discourage productivity and investment and that, therefore, they should be lowered, that people with higher incomes should, at the most, pay a proportional tax rate. Now, to some extent, the setting of marginal tax rate is a highly controversial political decision, and I would expect a great deal of input from congress, from major campaign contributers, from the conservative economic establishment as to what the ideal marginal tax rate is. I can make several recommendations based on the proposed revenue impact of different marginal rates, that is there are econometric models available to predict how much of the tax cut will effect savings, investment capital formation I can generate these figures if I had access to my computer, I will not rattle them off the top of my head but these are in principle regularly available. But it becomes very much a highly political question, exactly how these marginal rates are going to be set. What I would propose to the President is simply a model showing the impact on revenues, savings, and productivity, of alternative models of changes in marginal tax rates, and he will have to balance the decision in terms of the size of the budget deficit, but of course, the cut in taxes was going to increase the deficit, the proposed impact on productivity which must, in part, be based on flows of foreign capital into the country, which will of course will respond to changes in savings, investments, and withholding etc.

So, the tax policy input would only be one part of this, the President would have to consider the factors. But I can propose to him some options. In terms of getting this kind of marginal tax cut through congress, and in terms of improving the President's image he is being increasingly perceived as a friend of the rich, what I would propose should be that marginal tax cuts be linked to specific investment decisions, which is something that happened in Great Britain and a number of other countries that high income which has been saved or invested in the stock market or used for capital expansion in industry would not be taxed, whereas high income that goes to consumption, or that goes to profit or executive dividends in corporations, would be taxed at a higher rate at higher income which invested. It is possible to make some of these distinctions and to set marginal tax rates accordingly, so that cuts and high income tax rates are explicitly linked to social investment, rather than simply a boondogle for the rich to enable them to engage in high living at the expense of other people. I think this makes a great deal of sense economically, as a much more focused way to increase investment than simply cutting taxes across the board, it has worked well in other countries and I believe it would help the President politically in that it will not look like a boondogle for the rich. Accordingly I would recommend that marginal tax cuts be made but that other considerations be used as well as changes in productivity and maybe, explicitly, to investment decisions.

Domestic Policy Expert
Income Tax



I.GIPS

(RARG) Solution would require shift in political orientation because of present political differences
  (RREA) My political background is very different from Reagan's wants
    (ROUT) Would have to think differently
      (RELA) Need to be a conservative, business-oriented, supply-sider
        (RQUA) Question these values
      (RCON) Requires a shift
  (RSAS) Are serious tax problems which are not ideological
    (ROUT) Experts can agree on those
      (RPSC) Recent tax increase passed had reforms liberals supported
        (RELA) Improved compliance, withholding of S & L interest
        (RCON) These are goal of tax policy professionals and liberals
          (RELA) To improve fairness and rationality of system

II.GEVA

(RARG) Keep better track of all sources of income
  (RREA) Problem with people who have the same income but from different sources
    (RELA) Somebody who earns $30,000/year from wages pays very different rate from person who earns $30,000/year being self-employed or participating in the underground economy
    (RCON) Major problem of tax compliance-losing a lot of revenue

III.GEVA

(RARG) Increase money spent on auditing
  (RREA) So enforcement efforts can be stepped up
    (RELA) On independent contractors, self-employed, etc.

IV. GSUP

(RARG) Must maintain vertical equity
  (RFAC) Have had progressive tax system
    (RELA) Higher marginal tax rate
  (RFAC) Philosophy of this administration is that high marginal tax rates discourage productivity and investment
    (ROUT) Therefore, they should be lowered
      (RELA) People with higher incomes should pay proportional tax rate at most
  (RSAS) Setting a marginal tax rate is a highly controversial political decision
    (ROUT) Expect a great deal of input from Congress, campaign contributors, and conservative economic establishment

V. GEVA

(RARG) Make recommendations based on proposed revenue impact of marginal rates
(RFAC) Are econometric models to predict how tax cuts effect savings, investments, etc.
(RSAS) Becomes a highly political question of how marginal rates will be set
(ROUT) Provide President with several models to use in balancing decision
(RPSC) Budget deficit
(RELA) Tax cut raises deficit
(RPSC) Impact on productivity
(RELA) Based on flows of foreign capital into the country
(RELA) Will respond to changes in savings, investment, withholding, etc.
(RCON) Tax policy input would only be part of this
(RCON) I can propose some options

VI. GEVA

(RARG) Propose marginal tax cut linked to specific investment decisions
(RFAC) Happened in Great Britain and other countries
(RELA) Income saved or invested in stock market or used for capital expansion not taxed - Income used for consumption or goes to profit taxed at higher rate
(RSAS) Possible to make distinctions and set marginal rates accordingly
(ROUT) So cuts and high income tax rates are linked to social investment rather than rich living high at the expense of others
(RCON) Makes great deal of sense
(RREA) More focused way to increase investment
(RREA) Worked well in other countries
(RREA) Would help President politically
(RREA) Will not look like boondoggle for rich
(RCON) Recommend marginal tax cuts but use other considerations as well
(RPSC) Changes in productivity
(RELA) Investment decisions

Chemist A

I first want to preface the answer with a statement about the fact that there is no way I can give you a real answer to the problem, because of the lack of information. The only thing that I can really do is give a direction in which I would go if I were in that position. Also, not knowing the bureaucratic structure of the Department of Agriculture in the Soviet Union, I don't know what people to go to to ask the right questions. So, it all has to be very hazy in that sense. But like our Department of Agriculture, I'm sure there's a large bureaucracy and the people who are familiar with some needs are on top and the people who are familiar with how the job gets done are on the bottom, and somewhere in between this sense of togetherness gets lost, and so that's what we have to fix.

Knowing that, there are really two ways to solve the problem, I think. Two approaches you can make. One is a more scientific approach, and the other is a personnel approach. The first one relies upon knowing something about the facts of the matter and trying to correct using those facts, and the second one assumes that you know what you need to know to do it, but it's not being done because people aren't doing their jobs correctly.

Now, if I were to undertake first a scientific approach, I would ask for from whomever has the material data, statistics, on previous year's crops and previous year's weather, all the economic factors that might go into it and attempt some sort of correlation study to see what parameters most affect a crop yield in any given year. If I find a significant correlation, I'll do something about it. If I don't find a significant correlation, I either haven't gotten enough information, or

it's not a scientific problem, at least as we understand the parameters that we're using. At that point, to continue with the scientific approach might be useless, because to determine what parameters affect crop yield would take years and years, and this is not clearly within the realm of the solution that you want, so I'd just abandon that approach.

Simultaneously, one could carry out the personnel approach. And this is, for me, a much more difficult approach to take. It assumes some knowledge of how to determine what people's motivations are, why they are doing what they are doing. This is something which I'm not trained to do or feel knowledgeable about. But nonetheless, I think it would be possible to attempt discussions with (I assume that this is broke down into regions of some sort, that there are states in Russia) the regional directors, whomever they are discuss with them the problem and request the information from them, what their feelings are as to why the yields aren't high enough, neglecting scientific aspects, neglecting the weather and so forth. We assume that that's been taken care of.

Now at this point it becomes relevant, whereas before it wasn't really, that this is in the Soviet Union. I'm not sure if that was a purposeful part of the question, or just to confuse me, but now that we're in the Soviet Union, we must consider if the men are going to answer the questions based on what he really knows or based on what he feels the party thinks about him. Is he going to answer the question one way if he's a member of the party and another way if he's not? Is he going to answer the question one way if he's married, one way if he's not? So, at this point it would require, I feel, some sort of magician to get the right answer out of people. And, not having had developed

close personal relationships with these people, it would be very difficult to obtain the information required.

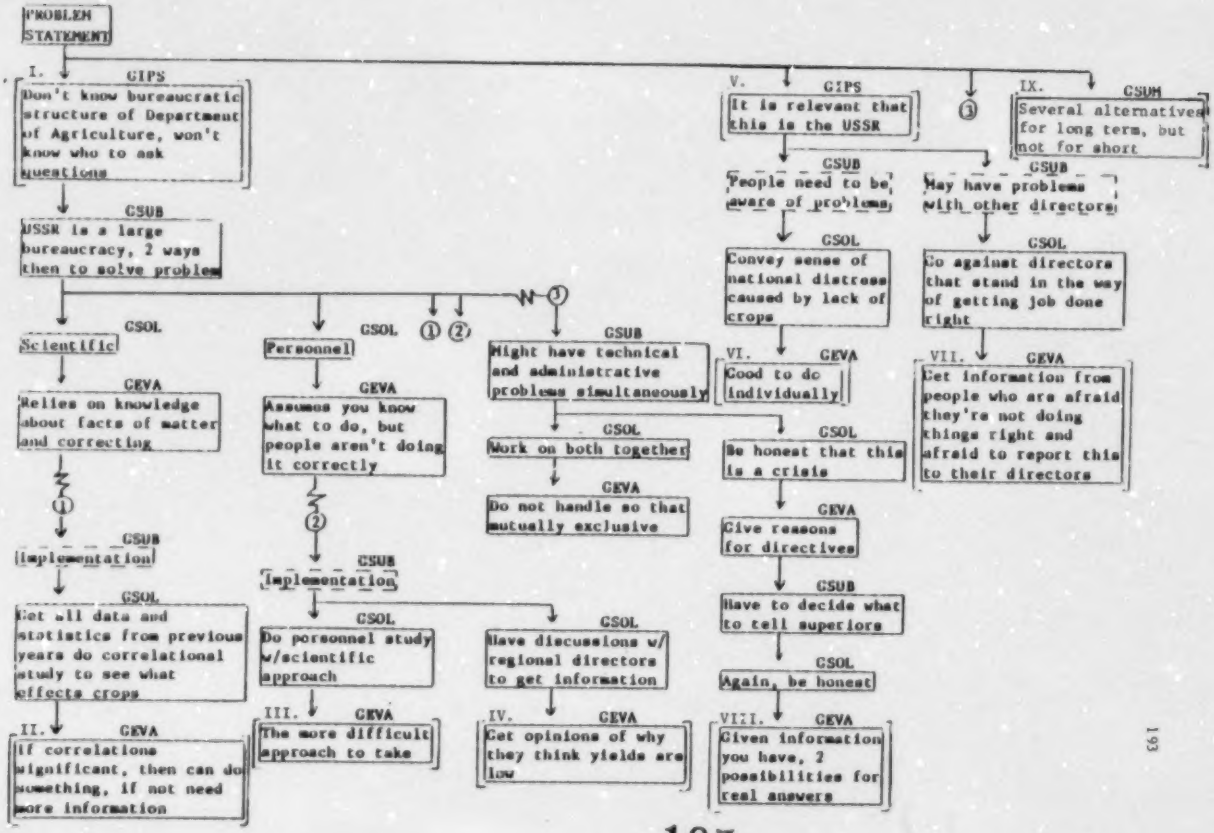
I think, I don't know, if I were in that position I would hope to be able to convey the sense of national distress that would be caused by the lack of crop failure and attempt to convince the people at this board meeting or whatever. Perhaps it would be better to do this individually in fact. That, if we don't have food, the society crumbles, and no matter what you think, we've all got to work together in this problem. I would do it as slowly as I could in a chit-chat sort of way to just break ground and then discuss with the person this fact, lay figures before him, show the directorate from the Kremlin that gives me this job, and tell them look we're really in trouble. I would suspect that a significant faction of people, if they had any fear about reporting a fact that really they're not doing the right thing because of this director and that director, that we must go against these directors to get the job done right, I would hope that a significant faction of the people would make that statement. And let's assume then that they do. Now, I can look at the statements that they make and there would clearly be some people who are still afraid and I won't get any information from them, and some other people who are not that I would get some information from, and I would hope to see a pattern, that they're all telling me roughly the same thing. This director and that director and that director just have to go, and then proceed in that direction administratively to remove the obstructions to getting good crop yields. I think that's about the end of the problem.

There are really two aspects which haven't been covered, one is what if I find simultaneously administrative problems and technical problems. There is something we can do in the scientific end to improve crop yield and there's something we can do in the administrative end to improve crop yield. These would obviously have to be handled in a way which are not mutually exclusive. And so at the one time when you are going against certain directives, you will be inventing others to comply with the scientific rules that you've made which might be confusing to someone of the law. Again, I would take an honest approach and make the fact known that this is a crisis situation, this is food we're talking about, and the reasons for the deletion of these directives is the following, and we expect you to take, therefore, this course of action, and the reason for the inclusion of these directives is the following, and because we're going to get higher crop yields this way and this is shown by studying crop yields from this many five-year plans.

I suppose the final aspect of the problem, although it's not really a part of the problem, is what to tell your superiors, and once again, the honest approach has to be taken, and given the information that you have you have two real answers. One is you can assign some sort of probability that the crop yield would be as high as they want it to be within a certain period of time, and if that probability is low, then you have to suggest to them other methods, such as diplomatic methods to insure the import of the necessary amounts of grain, and it is at this point that you force yourself to do what you were asking your underlings to do, and that is to throw away the fear of telling them that they're all wet, that they have to do this, even though it's politically perhaps not what they want to do. If they want to eat, they must keep the peace and insure the imports. On the other hand, if the probability is high

that they can get the necessary grain, then they can continue being belligerent or whatever they happen to be doing at the time, ensuring their grain to be cut off.

There are several alternatives which I suppose are reasonable for long-terms, but not for short terms. One was discussed about scientific research -- that's not a short-term alternative. Another would be geographical exploration, to determine in what areas the temperature and soil conditions are correct for grain production, which are not already being studied. That also is a long-term production especially since, if it hasn't already been discovered or used, if there are no people there, then that would involve transportation of people to a new area by whatever means. Invasion of Iowa is something I wouldn't suggest. There are probably wheat and corn producing states near Russia which might be invaded. This is one concept which I wouldn't suggest and would hope that the Defense Department wouldn't suggest it


PROBLEM STATEMENT
I. GIPS
Don't know bureaucratic structure of Department of Agriculture, won't know who to ask questions
GSUB
USSR is a large bureaucracy, 2 ways then to solve problem
GSOL
Scientific
GEVA
Relies on knowledge about facts of matter and correcting
GSUB
Implementation
GSOL
Get all data and statistics from previous years do correlational study to see what effects crops
II. GEVA
If correlations significant, then can do something, if not need more information
GSOL
Personnel
GEVA
Assumes you know what to do, but people aren't doing it correctly
GSUB
Implementation
GSOL
Do personnel study w/scientific approach
III. GEVA
The more difficult approach to take
GSUB
Might have technical and administrative problems simultaneously
GSOL
Work on both together
GEVA
Do not handle so that mutually exclusive
GSOL
Have discussions w/ regional directors to get information
IV. GEVA
Get opinions of why they think yields are low
V. GIPS
It is relevant that this is the USSR
GSUB
People need to be aware of problems
GSOL
Convey sense of national distress caused by lack of crops
VI. GEVA
Good to do individually
GSOL
Be honest that this is a crisis
GEVA
Give reasons for directives
GSUB
Have to decide what to tell superiors
GSOL
Again, be honest
VIII. GEVA
Given information you have, 2 possibilities for real answers
GSUB
May have problems with other directors
GSOL
Go against directors that stand in the way of getting job done right
VII. GEVA
Get information from people who are afraid they're not doing things right and afraid to report this to their directors
IX. GSUM
Several alternatives for long term, but not for short

I. GIPS

(RARG) Don't know bureacratic structure of Department of Agriculture
(RELA) Don't know people to go to
(RCOM) Like U.S. Dept. of Agriculture there's a large bureacracy
(RELA) Those who know needs on top
(RELA) Those who familiar with jobs on bottom
(ROUT) Togetherness is lost
(RCON) This is what has to be fixed

II. GEVA

(RARG) Do a correlational study to see parameters that most effect crop yield in a given year
(RELA) Need material data, statistics, weather and economic factors
(ROUT) Significant correlation found
(RCON) I'll do something
(ROUT) Insignificant correlation
(RREA) Not enough info
(RREA) Not scientific problem
(RELA) As we understand parameters
(RCON) To continue might be useless
(RREA) Might take years to determine parameters
(RCON) Abandon the approach

III. GEVA

(RARG) Personnel approach more difficult for me to take
(RSAS) Assumes knowledge of determining people's motives
(RSAS) I am not qualified to do this

IV. GEVA

(RARG) Discussion with regional directors
(RSAS) Assume broken down into regions
(RELA) Discuss problem and get information from them
(RELA) What their feelings are concerning problem
(RQUA) Neglect scientific aspect, weather, etc.
(RREA) Assume that's been taken care of

V. GIPS

(RARG) It becomes relevant that this is the USSR
(RSAS) Not sure if that was purposeful part of the question or just to confuse me
(RREA) Need to consider way in which men answer questions based on knowledge or how party feels about him
(RREA) Might answer one way if he's party member and another if he's not
(RREA) Will he answer one way if he's married and another if he's not
(RCON) Need magician to get the right answer

VI. GEVA

(RARG) Better to convey sense of national distress individually
(RELA) If there's not enough food the society crumbles no matter what you think
(ROUT) We've all got to work together
(RELA) Do it in a chit-chat sort of way
(RREA) To break ground
(RELA) Then discuss problem
(RELA) Lay figures before him
(RELA) Show directorate from Kremlin
(RELA) Tell them we're in trouble

VII. GEVA

(RARG) Must go against directors to get job done right
(RREA) Significant faction of people are afraid they're not doing things right and afraid to report it
(RSAS) Assume they do tell
(RQUA) Clearly some people still afraid won't get into from them
(ROUT) Some not afraid and will get information
(RSAS) Hope to see a pattern
(RELA) That they're all telling me roughly the same thing
(RELA) That remove obstruction and get good crop yield

VIII. GEVA

(RARG) Given information that you have, you have 2 real answers
(RELA) One is to assign probability to crop yield being what you want in a certain period of time
(ROUT) That probability is low
(RCON) Have to suggest other methods
(RELA) Diplomatic methods to insure import of grain
(RSAS) At this point do what you were telling your underlings to do
(RELA) Throw away fear of telling them they're all wet
(RELA) Have to do this even though not politically what they want
(RREA) If they want to, each must keep peace and insure imports
(ROUT) Probability is high
(RCON) They can continue to be beligerent or whatever they're doing

IX. GSUM

(RARG) Several alternatives for long term but not short term
(RSAS) One is scientific research
(RCON) Not short term
(RSAS) Geographical exploration
(RREA) Determine what areas are correct for grain production not already studied
(RELA) Also long term production
(RREA) Especially if it hasn't already been discovered or used
(RREA) If there are no people it involves transportation

Chemist B

Assuming that this is such a high priority item and that I would be director of agriculture and presumably nobody is going to tell me what to do, in a police state, that means I can do almost anything. I could presumably use the Cambodian model and clean out all of Moscow and send everyone to the countryside with the threat of breaking their knee caps if they don't go to work.

I think what one must do, probably, in a serious answer from what I read, the major problem seems to be that nobody really wants to work on collectives, at least the way they've been set up, and when farmers are permitted to grow their own private plots on which the little bit that they can use to sell on the black market or wherever they sell it, I guess it's not black market, the government permits it, that production is much greater than in communes or collectives. Probably one of the answers would be in the short run to allow private ownership or private planting, with the farmers able to sell their own crops. That's probably the quickest thing that one could do.

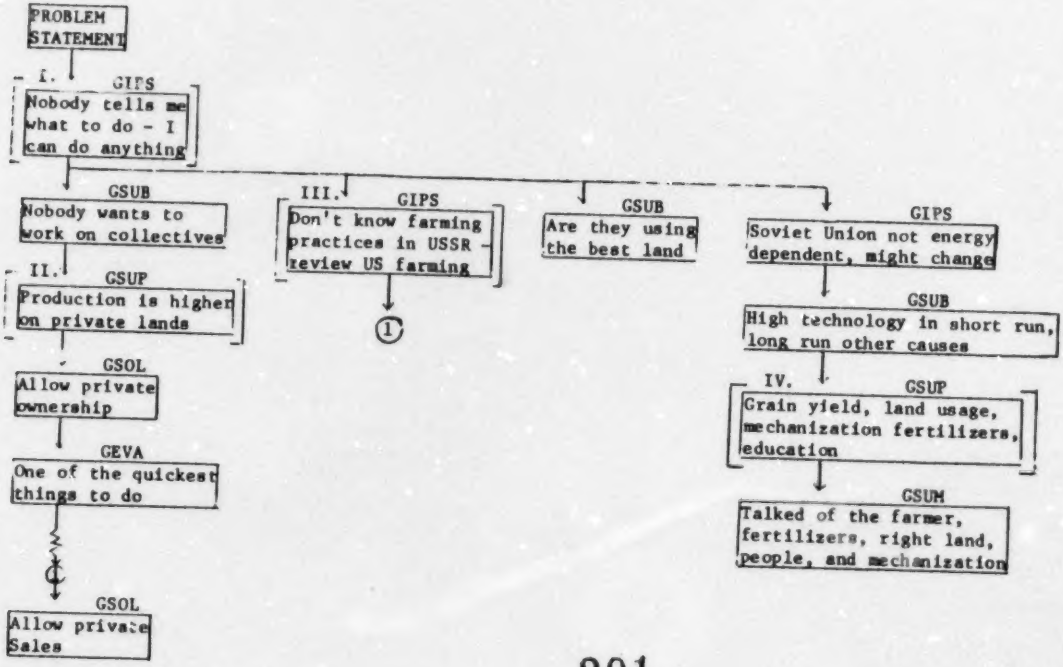
I'm not acquainted with farming practices in the Soviet Union, so I couldn't say what they're doing wrong. The United States of course uses a highly technological approach to farming, heavy use of fertilizer which, from what I gather, again from what I've been reading recently, a number of farmers are going away from that and going back to organic farming, and not just the little guy who wants to sell to a co-op, but it's becoming a fairly major movement right now. In fact it's being investigated, a study by the agriculture department right now, but I think that is a luxury that one can really go back to, since we grow so much of our own crops. Now, the Soviet Union, I don't know what their

fertilizer situation is. I don't have a feeling for how much their farmers know about farming. Again, a major thing that one could do is to allow private I don't know if it's private ownership, but certainly private sales of crops.

I just don't know enough about the Soviet Union. Are they using the best land? Are they using land that is not good for crops whereas other land that would be much better isn't being use? I don't know. The Soviet Union is not energy dependent, at least as of right now, although that situation might change.

Presumably they could go to a high technological approach in the short run. In the long run, you would have to try to ferret out other causes and other reasons, I should say, for the problems. Are they using grains that give a maximum yield? The so-called Green Revolution, for example, like the new strains developed mainly here in the United States that give a greater yield, supposedly more foods, less branch. Are they using such high-yielding strains? Again, the question of the land that is being used. The question of how mechanized is the farming. How labor intensive is Soviet farming. Could yields be increased by going to a more mechanized-type of farming? What is the situation with regards to fertilizer? Again, as I said, the Soviet Union is not energy dependent right now. On the other hand, so much of the resources goes towards the military and defense that it's possible that monies could be spent for fertilizers, for pesticides, assuming that that's a good thing. Is it that resources are not being concentrated? Do farmers need to be educated in better farming techniques? Are old methods being used that are not efficient?

So, what have I spoken to? I've spoken to the farmer, what is the manpower distribution? Are there enough farmers? Are there too many farmers? Should it be mechanized? Should farmers be able to make private profit from their work, fertilizer? Are we (see I'm now the Commissar) spending enough for fertilizer? For pesticides? Do more resources have to be marshalled in this area? Would it make a difference? Are we using the right land? People? Mechanization? Can a tank pull a plow? We might be able to very quickly make differences here.


PROBLEM STATEMENT
I.
GIPS
Nobody tells me what to do - I can do anything
GSUB
Nobody wants to work on collectives
II.
GSUP
Production is higher on private lands
GSOL
Allow private ownership
GEVA
One of the quickest things to do
GSOL
Allow private Sales
III.
GIPS
Don't know farming practices in USSR - review US farming
1
GSUB
Are they using the best land
GIPS
Soviet Union not energy dependent, might change
GSUB
High technology in short run, long run other causes
IV.
GSUP
Grain yield, land usage, mechanization fertilizers, education
GSUM
Talked of the farmer, fertilizers, right land, people, and mechanization

I. GIPS

(RARG) Nobody is going to tell me what to do, I can do anything
(RREA) Because this is such a high priority item
(RREA) I would be the director of agriculture
(RSAS) I could use Cambodian model
(RELA) Clean out all of Moscow
(RELA) Send every one to the countryside with threat of breaking their kneecaps if they don't work

II. GSUP

(RARG) Nobody wants to work on collectives
(RQUA) At least the way they are set up
(RREA) Farmers permitted to grow their own private plots grow more
(RREA) Sell on black market or wherever
(RQUA) Not really black market
(RREA) Government permits it
(ROUT) Private production is greater than on collectives or communes

III. GSUB

(RARG) Not familiar with farming in USSR
(ROUT) Don't know what they are doing wrong
(RCOM) US uses high tech approach to farming
(RELA) Heavy use of fertilizers
(RFAC) Some farmers going back to organic farming
(RELA) Not just little guy but its becoming major movement
(RFAC) A study by agriculture department if being investigated right now
(RCON) It is a luxury since we grow so much of our own crops
(ROUT) Now I don't know what fertilizer situation in USSR
(RELA) I don't have a feeling for how much their farmers know about farming

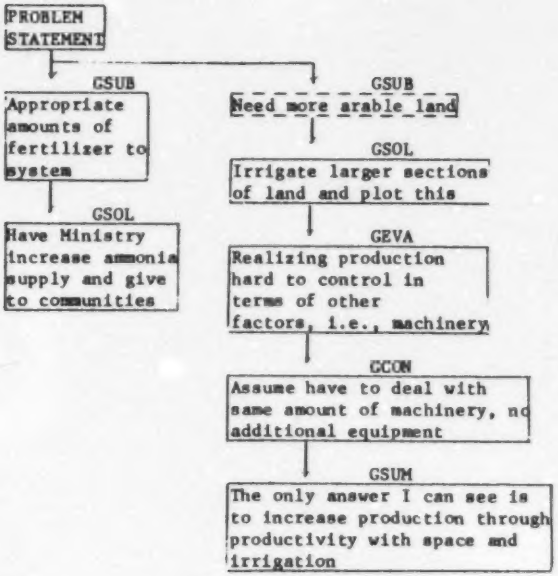
IV. GSUP

(RARG) In long-run have to feret out other causes and reasons for problems
(RPSC) Grains giving maximum yields being used?
(RPSC) Green Revolution, grains here in US give greater food, less branch
(RPSC) Question of land that is being used
(RPSC) How mechanized is farming
(RELA) How labor intensive is farming
(ROUT) Increase yields by going to more mechanized-type of farming
(RPSC) What is situation concerning fertilizers
(RSAS) A lot of resources toward military and defense and this could go toward fertilizers, etc.
(RCON) Are resources not being concentrated
(RPSC) Education of farmers
(RELA) Old methods still being used that are inefficient

Chemist C

...appropriate amounts of fertilizer to the system. Therefore, I would have the Ministry, or whatever group is in charge of producing large amounts of ammonia, increase their capacity and supply this to the communities for distribution immediately. In addition, I would irrigate larger sections of less arable land and plot this, realizing of course that production is difficult to control in terms of other factors, such as amounts of machinery and so on. Assuming that we have to deal with the same amount that we have now and have no additional equipment advance, I guess the answer that I've given you is really the only one I can see, is to increase the production through increased productivity with the space available and with a little bit of additional irrigation.

Chemist C


PROBLEM STATEMENT
GSUB
Appropriate amounts of fertilizer to system
GSOL
Have Ministry increase ammonia supply and give to communities
GSUB
Need more arable land
GSOL
Irrigate larger sections of land and plot this
GEVA
Realizing production hard to control in terms of other factors, i.e., machinery
GCON
Assume have to deal with same amount of machinery, no additional equipment
GSUM
The only answer I can see is to increase production through productivity with space and irrigation

Chemist D

Well, as Director of Agriculture in the Soviet Union, I would get in touch with at least two groups. The initial group that I would get in touch with are the individuals that are responsible for the manufacture of farm machinery. The second group that I would get in touch with is the director of chemical industries that is responsible for the production of fertilizers that are needed in the agricultural industry.

We would like to increase the production. One way to do that is through more intensive farming methods, utilization of fertilizers. We recognize that one of the limitations in the past has been that there is inadequate fertilizer available for use throughout the agricultural community in the Soviet Union. As these would be immediate steps that ought to lead to a beneficial result within a one or two-year period, over a longer haul we would like to develop a different way of handling human resources in the agricultural industry to build in more incentives for productivity. This would entail some modification of the collective farming system that is used in the Soviet Union.

We realize that we cannot make major modifications in this. The Politburo would not stand still for the complete disassembly of the collectivization system in the Soviet Union, but we could increase the percentage of small farms that are in existence at the present time and adopt a flexible price structure for the output of these small farms. In time we might be able to raise the percentage of small farms by a significant amount. And with these three steps I think the agricultural dilemma in the Soviet Union could be somewhat resolved.

Improving the farm machinery available and the quality and quantity of fertilizer would be short-range measures to improve productivity. Improving the system in which human resources were employed would be a longer range approach to the problem.

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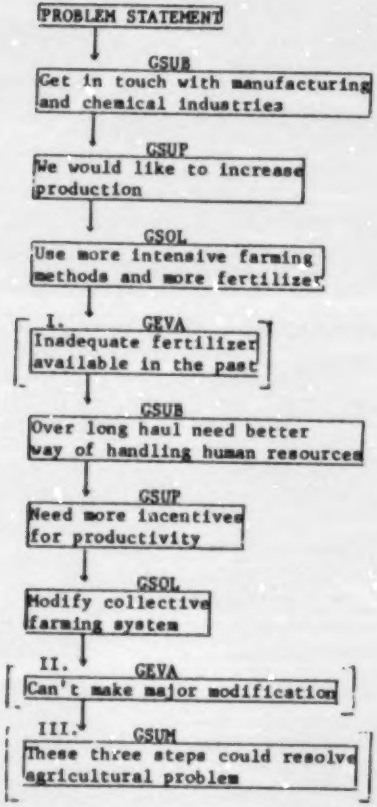

PROBLEM STATEMENT
GSUB
Get in touch with manufacturing and chemical industries
GSUP
We would like to increase production
GSOL
Use more intensive farming methods and more fertilizer
I.
GEVA
Inadequate fertilizer available in the past
GSUB
Over long haul need better way of handling human resources
GSUP
Need more incentives for productivity
GSOL
Modify collective farming system
II.
GEVA
Can't make major modification
III.
GSUM
These three steps could resolve agricultural problem

I. GEVA

(RARG) Use more intensive farming methods and more fertilizers
(RREA) There has been inadequate fertilizer available for use
(ROUT) This would lead to a beneficial result in a one or two yea. period

II. GEVA

(RARG) Modify collective farming system
(RSAS) Realize we can't make major modifications
(RREA) Politburo won't allow complete disassembly
(RSAS) Increase percentage of small farms
(RSAS) Adopt flexible price structure for their output
(RCON) Might be able to raise percentage of small farms by significant amount eventually

III. GSUM

(RARG) These three steps could resolve agriculture problem
(RPSC) Improve farm machinery
(RPSC) Improve quality and quantity of fertilizer
(RREA) Short range measure to improve productivity
(RPSC) Improve system in which human resources are employed
(RREA) Longer range approach to problem

Career Foreign Service Officer

The question you have asked, in addition to that, is whether or not the real goal of the society is to increase agricultural production, or whether there are other goals over and above increasing agricultural production that have priority even though in meeting those goals, the goal of increasing agricultural production, will not be made. And so, when you have the answer to that question, then you can answer your agricultural production question, because you have to respond to the politics and the ideology. And then you have to know who the individual is who is the Minister of Agriculture. (Exp. - You are the minister of Agriculture)

Well in the Ministry of Agriculture you have to realize that some of them are technocrats and some are politicians, and that the two of them will go about solving the problem. (Exp. - But you are the Minister of Agriculture) I know but, some people, even in our government, some of them are there because they were party hacks, and they figure that that is where they get their rewards from, and other people are there because they respond to the needs of providing service to the public. And every time you look at a problem in government, you have to figure out what really drives the people trying to solve the policy problem.

So, if I were the Minister of Agriculture, I would look at myself as a technocrat. And I would stimulate farm production. But in the Soviet Union if you started doing that, from what I understand of the Soviet Union and societies like that, is that you would not last two weeks because to stimulate agricultural production, you have to provide people with incentives and when you provide people with incentives, you

start running into problems in contradicting objectives of the state. So, you can not answer the question until you have more information.

If you wanted to optimize, if you were a technocrat who understood the political realities, and not all technocrats do, and not all politicians really give a damn about the technical requirements, but if you were an optimizing technocrat, then you would also have to know who your friends were in the system and how much you could get away with in doing the things you need to do to implement an agricultural production increase.

So you cannot say "assume you are..." because you have to tell an awful lot about the environment. You also have to say other things about who is in your ministry and how loyal they are to you, how powerful they are in the system, how much they are willing to take risks within the system, how much you might perceive them to be a threat to yourself, and so the question really is too incomplete to answer. (Exp. - You cannot put yourself, as a technocrat, into the position, to solve it the way that you, given your training, and your bent, your experiences, the way you would go about it given what you know about the Soviet Union?) You can never take a given about what you know about any country. There are a couple of broad generalities, like there is a socialist system there that is different from a capitalist system, but there is a great variety in socialist systems and you could do one thing in Romania, and you can do another thing, and you cannot do that thing at all in the Soviet Union.

The only way I could really answer the question is if I set up my own scenario. But I could set up probably a dozen scenarios, and I could (Exp. - What are the factors in the scenario that you would manipulate?) I would manipulate my personal relationships with people, the power in the system so I could do what I wanted to do, I would make sure that the people that worked for me are good people, I would make sure that I understood the real dynamics of the problem, which you could do in any case, although sometimes even that is threatening. Because sometimes information is considered a threat. As a matter of fact, quite frequently information is considered a threat, and so sometimes you cannot even get information in the society to really understand what the problem is just so you understand it sufficiently enough to solve the problem. I mean those are the kinds of things that you would want to control. You would want to have all the information on the problem so that you understood it, you would want to have the best possible position in terms of leveraging what you want to do, both with the people above you and the people below you, you would want to have all the support possible to implement what you want to do. (Exp. - So you are not going to answer the question?) Well, I could answer the question, but it would be meaningless because there are so many "if's" that would have to be in place for me to do that.

I would study the system, and find out why production was low, and find out what production priorities are, because you cannot have a big production push and just say everything is going to be produced to the maximum by next Thursday, because that does not work in agriculture. You have to say where we are really hurting, for instance in the Soviet Union now is in the area of wheat. So you would have to look at wheat and you would have to say, are people there planting enough wheat? The

answer to that is yes but the yields are really low. Then you would have to look at why the yields are low and come up with a pretty much technological answer. Maybe they are using the wrong mix of fertilizer. Maybe they are using an inappropriate strain of wheat. Maybe there has been a disease that has affected wheat so they need herbicides or pesticides, those sorts of things. Maybe there is not a sufficient price incentive, which is more frequently the problem than other things. Farmers are economic beings and unless there is some reward for the risk they take and the effort they put in, they are not going to meet those production goals, so you change that. If you had the political clout to do that. A lot of times those sorts of things are directly contradictory to goals of providing food cheaply to the people and so to be able to provide wheat, i.e., flour, bread, to the people, they would say then we are not going to pay the farmer a good price, but if you do not pay the farmer a good price, then he is not going to grow. And so what happens is wheat is available at low prices, except that there is no wheat available which is the whole thing in Guyana. Not about wheat but about other things.

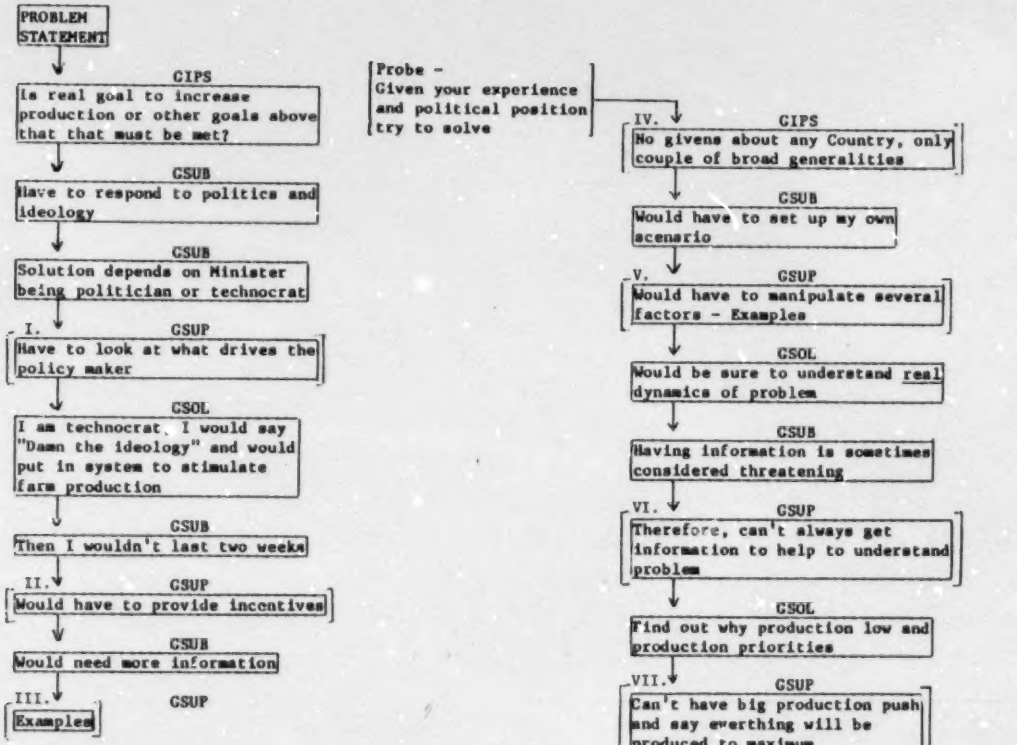
If that was not the problem, it could be marketing. A good example, like again in Guyana is, that Guyana can grow corn pretty easily, but they have all but stop growing corn because one, the price was too low. The price they were offering farmers, a fixed price, was lower than production so farmers, except for self sufficiency, stopped growing it. But the other thing too was that there was a state marketing corporation that was the sole authorized purchaser of corn and when it came time for them to purchase corn, they were unreliable, and so corn ended up rotting at the side of the road or something equally bad and the farmers lost everything again. And not only that, it is

almost worse than having a low price incentive because to see all your work just sit there and rot and nothing happen to it, you will not grow any more. There is that problem.

Sometimes there are other problems. Sometimes there is a tax system that is going to take the money away from the farmers as soon as he earns it or other things that you really have to understand why it is. You have to analyze the system, the production system, to understand why it does not work. You have to have the political clout and it is almost always political clout. Rarely is the problem just technological to solve it. And you would have to do that crop by crop including animal products as crops whether it is meat or milk. So that you would have to do.

You have to look at disincentives too, disincentives to production. For instance, prices could be adequate to the farmer, but the country can decide, like the Soviet Union for instance, to bring in wheat from abroad at a price that is cheaper than the local cost of production so that there is a glut on the market there that is reducing demand for local product. It all comes down to analyzing what the constraining issues are against production and solving it. And it is almost always much easier to figure out why you cannot produce then to eliminate those problems and produce.

Career Foreign Service Officer


PROBLEM STATEMENT
GIPS
Is real goal to increase production or other goals above that that must be met?
GSUB
Have to respond to politics and ideology
GSUB
Solution depends on Minister being politician or technocrat
I.
GSUP
Have to look at what drives the policy maker
GSOL
I am technocrat. I would say "Damn the ideology" and would put in system to stimulate farm production
GSUB
Then I wouldn't last two weeks
II.
GSUP
Would have to provide incentives
GSUB
Would need more information
III.
GSUP
Examples
Probe - Given your experience and political position try to solve
IV.
GIPS
No givens about any Country, only couple of broad generalities
GSUB
Would have to set up my own scenario
V.
GSUP
Would have to manipulate several factors - Examples
GSOL
Would be sure to understand real dynamics of problem
GSUB
Having information is sometimes considered threatening
VI.
GSUP
Therefore, can't always get information to help to understand problem
GSOL
Find out why production low and production priorities
VII.
GSUP
Can't have big production push and say everthing will be produced to maximum

I. GSUP

(RARG) Solution depends on whether Minister is technocrat or politician
(RREA) Each kind will go about solution differently
(RCOM) Like in our own government
(RELA) Some are there because they are party hacks
(RELA) They figure thats where they get their reward from
(RELA) Some are there to respond to the needs of providing public service
(RCON) Every time you look at a problem in government you have to figure out what really drives the people trying to solve the policy problem

II. GSUP

(RARG) Would not last two weeks because I would provide incentives to stimulate production
(RREA) Incentives to people contradict objectives of the state

III. GSUP

(RARG) Need more information
(RPSC) If you want to optimize
(RPSC) If you were a technocrat who understands political realities
(RQUA) Not all technocrats do
(RQUA) Not all politicians give a damn about technical requirements
(RSAS) If you were an optimizing technocrat then you have to know who your friends are
(RELA) Have to know how much they would back you up
(RELA) Have to know how much you could get away with
(RREA) So you could do the things you need to do to implement production increase
(RCON) So you can't say "Assume you are..."
(RREA) Because you have to tell a lot about the environment
(RREA) Because you have to say who is in your ministry
(RPSC) How loyal they are to you
(RPSC) How powerful they are in the system
(RPSC) How willing they are to take risks
(RPSC) How much you might perceive them to be a threat to yourself
(RCON) The question is too incomplete to answer

IV. GIPS

(RARG) Can never take a given about what you know about any country
(RQUA) There are a couple of broad generalities
(RPSC) There is a socialist system which is different from a capitalist system
(RQUA) But there are a great variety of socialist systems
(RELA) You could do one thing in Romania, but you can't do that thing at all in the Soviet Union

V. GSUP

(RARG) Would have to set up my own scenario in order to solve this problem
(RPSC) Would manipulate my personal relationships with people
(RPSC) Would make sure that people that work for me are good people

VI. GSUP

(RARG) Having information is sometimes considered threatening
(ROUT) So you sometimes can't get information just to understand the problem sufficiently enough to solve it
(RSAS) You want to have all the information on a problem
(RREA) So have best position for leverage
(RELA) With people above you and below you
(RREA) So you have all the support possible to implement what you want

VII. GSUP

(RARG) Find out why production was low and what production priorities are
(RREA) Can't just have big production push and say everything is going to be produced to the maximum by next thursday
(RREA) That just doesn't work in agriculture
(RSAS) Have to see where we are really hurting
(RPSC) Now in USSR it is wheat
(RSAS) So you would have to look at wheat and see if enough is planted
(ROUT) Answer is yes, but yield is low
(ROUT) Would look at why yield is low
(ROUT) Come up with technological answer
(RPSC) Maybe wrong mix of fertilizer
(RPSC) Maybe wrong strain of wheat
(RPSC) Maybe diseise
(ROUT) Then would need herbicide or pesticide
(ROUT) May not be sufficient price incentive
(RSAS) More frequently the problem than other things
(RSAS) Farmers are economic beings
(ROUT) Need reward for risk and taken effort put in to meet production goals
(RCON) So you change that if you have the clout
(RSAS) Oftentimes this is contrary to goals of providing food cheaply
(ROUT) So can't pay farmer good price
(RQUA) But if don't pay good price, then he won't grow
(ROUT) What happens is wheat is not avail.
(RCOM) Like in Guyana, not with wheat, but other things
(RSAS) Could be marketing
(RCOM) Like in Guyana, can grow corn easily, but have stopped
(RREA) Because price too low
(RELA) Offered fixed price to farmers, lower than production costs
(ROUT) Except for self-sufficiency they have stopped growing it
(RREA) State marketing corporation unreliable
(ROUT) Corn would rot at side of road
(ROUT) Farmers would lose everything
(RCON) Worse than low incentive
(RREA) See all your work just sit and rot
(ROUT) Won't grow anymore
(RSAS) Sometimes there are tax problems
(RELA) Takes money away from farmer as soon as he earns it
(RCON) Have to analyze the production system to understand why it doesn't work
(RCON) Have to have political clout
(RREA) Because solution is rarely just technological
(REAL) Looking at each crop-including animal crops
(RSAS) Have to look at disincentives of production
(RPSC) Prices could be adequate to farmer but country can decide
(RPSC) Soviet Union decided to import wheat is cheaper than local production
(ROUT) Glut on market which reduces demand for local product
(RCON) Comes down to analyzing the constraining issues and solving them
(RCON) Almost always much easier to figure out why you can't produce then to eliminate those problems and produce

East European Scholar

The first thing I consider as the Minister of Agriculture in the Soviet Union, I should ask myself or my deputies to what extent is this possible to improve? This agricultural system of the Soviet Union within the lin'ts of the existing ideology, because as far as I know, this ideology makes more or less stable assumptions how the system should work. Then, the second question I would like to have to ask myself is, what may I do within limits of the ideological presumptions and ideological structure? I believe that it is almost impossible to say that we try reprivatization of the industry, agriculture industry, is possibly the best solution. I do not think that it is possible to change the whole structure of this institution in the Soviet Union, colhaus and sufhaus you know what I mean? (Exp. - No) The colhaus is run by state, the farm. And the sufhaus is a sort of peasants cooperative. And I don't think that it is possible to change the whole basic structure of it. I mean reprivitazation is almost impossible.

Now, there are two problems I think in this structure. The first one is poor equipment, a lack of fertilizers, and the whole infrastructure. It depends on efficiency and industrial supplies to the country and to the villages.

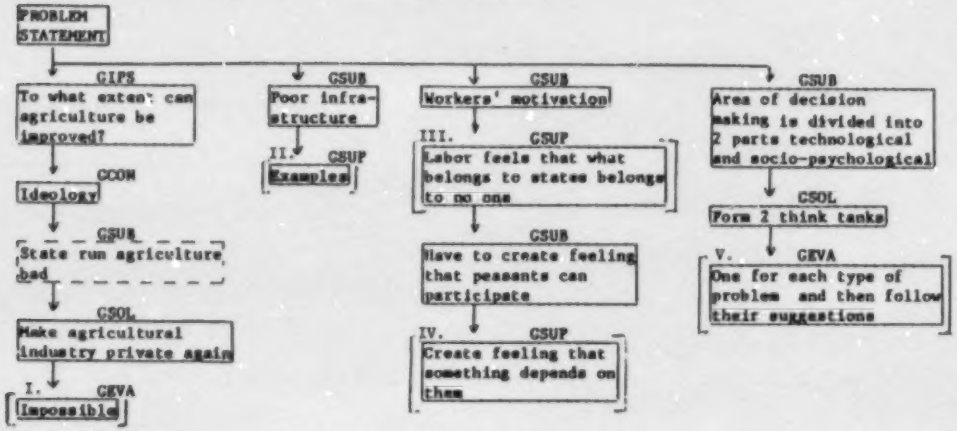
The second problem is how to change the peasants, or agricultural workers motivation. The constant problem is that, as far as I am familiar with the motis operandi of the Soviet Union system, is that people think what belongs to the state belongs to nobody in fact. If something, a certain good, there is no less abstract than the state owner, and that is OK. But if certain goods belong to the state, the state is so abstract that they think that it belongs to nobody. Then

they do not care about it. Then the problem is how to create, within the peasant population, feelings that they participate. That is perhaps the best expression. How to increase the psychological question of connected to social engineering, how to increase the feeling of participation among peasants. How to increase the participation among peasants. How to increase the feeling of the idea that they participate in the system, and something depends on their decisions.

Then, when we have this area of decision-making divided into two parts, I mean one is the sub-area of technology and technological improvement, and the second area is the area of socio-psychological changes, then I would like to call two groups of experts. Sort of two think tanks. One of them devoted to technological problems. The second one to the psychological or socio-psychological problems. Probably it would be the best thing to establish four think tanks. Four expert teams, two in every sub-area. Just to know different opinions. And later on I would have to follow their decisions. That is all in fact.

As the head of the Ministry of Agriculture, I am obviously a bureaucrat, rather than a specialist in an item. I suppose I would not know something about the engineering problems or things like that. As a more or less enlightened bureaucrat I have to follow experts decisions and suggestions.

East European Scholar



I. GEVA

(RARG) Make agricultural industry private again

(RSAS) Almost impossible to do
(RREA) Can't change the whole structure of the institution in the USSR
(RELA) The colhaus and sufhaus
(RCON) It is impossible

II. GSUP

(RARG) Poor infrastructure

(RPSC) Poor equipment
(RPSC) Lack of fertilizers
(ROUT) Efficiency depends on industrial supplies to the country and villages

III. GEVA

(RARG) Problem with workers' motivation

(RSAS) People think what belongs to the state belongs to no one in fact
(RCON) If owned by something less abstract than the state, it is OK
(RELA) If state-owned, then it is so abstract they think it belongs to no one
(ROUT) Then they don't care about it

IV. GSUP

(RARG) Need to create feeling of participation for peasants

(RELA) Social engineering problem
(RELA) Need to give them ides that they participate and make decisions
(RELA) Need to make them feel that they are depended on

V. GEVA

(RARG) Create two think tanks

(RPSC) One for technological problems
(RPSC) One for socio-psychological problems
(RQUA) Would probably be best to have four
(RREA) Just to know different opinions
(RCON) Late would have to follow their suggestions
(RREA) As Minister of Agriculture, I am a bureaucrat, not a specialist
(ROUT) Would not know engineering
(RCON) Would have to follow experts decisions